DOCUMENT RESUME

ED 389 392 PS 023 597

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TITLE Parents in Partnership for Proficiency: For 3rd & 4th Graders and Their Families.
INSTITUTION Medina County School District., OH.
PUB DATE 95
NOTE 151p.; Cover and section dividers printed on colored stock.
PUB TYPE Guides - Non-Classroom Use (055) -- Guides - Classroom Use - Instructional Materials (For Learner) (051)

EDRS PRICE MF01/PC07 Plus Postage.
DESCRIPTORS Achievement Tests; After School Education; *Competency Based Education; Elementary Education; *Elementary School Curriculum; *Elementary School Mathematics; *Elementary School Science; *Elementary School Students; Grade 3; Grade 4; Learning Activities; Parent Participation; Parents as Teachers; Parent School Relationship; Science Experiments; Social Studies; Supplementary Education; Verbal Development

ABSTRACT

This document contains a series of learning materials for 3rd and 4th graders and their families. The materials are designed to augment classroom learning. Included are worksheets, games, and other skill building activities for writing, reading, math, citizenship, and science. These activities are meant to help children prepare for proficiency exams. As such, the document also includes goals for each subject area, methods to develop study skills, and test taking tips. Examples of activities in each subject area include the following: (1) writing--story writing, letter writing, and creating writing webs; (2) reading--power reading, phonics, and story grammar wheels; (3) math--baseball math, money math, and home polygons; (4) citizenship--understanding separation of powers and branches of government, opinion polling, following elections, and family geography bingo; and (5) science--recycling, weather, and being a plant detective. Test taking tips, study skill suggestions and a bibliography of books, videos, magazines, and games to support learning are included. (JW)

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ED 389 392

Parents In Partnership for Proficiency

For 3rd & 4th Graders and their families

Developed
1994-95

BEST COPY AVAILABLE

First Printing
1995-1996

PS 023597

Acknowledgements

The following people are responsible for the development of this book.

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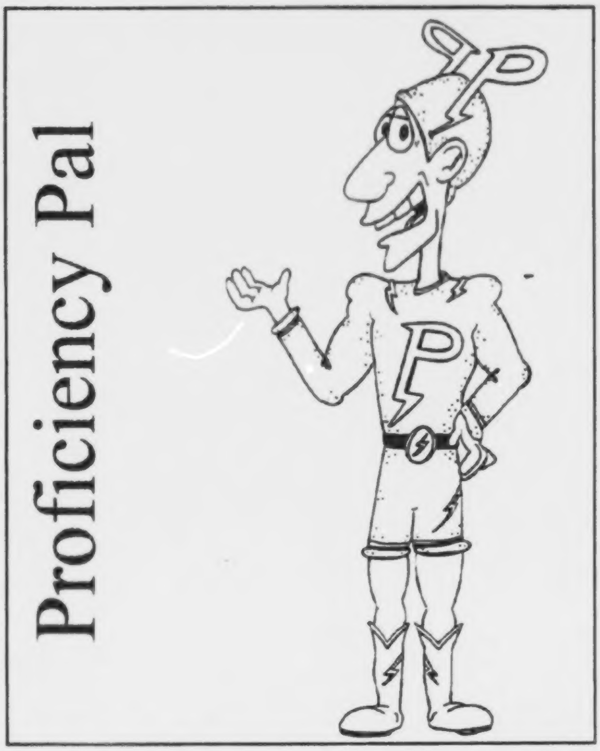
Hi There!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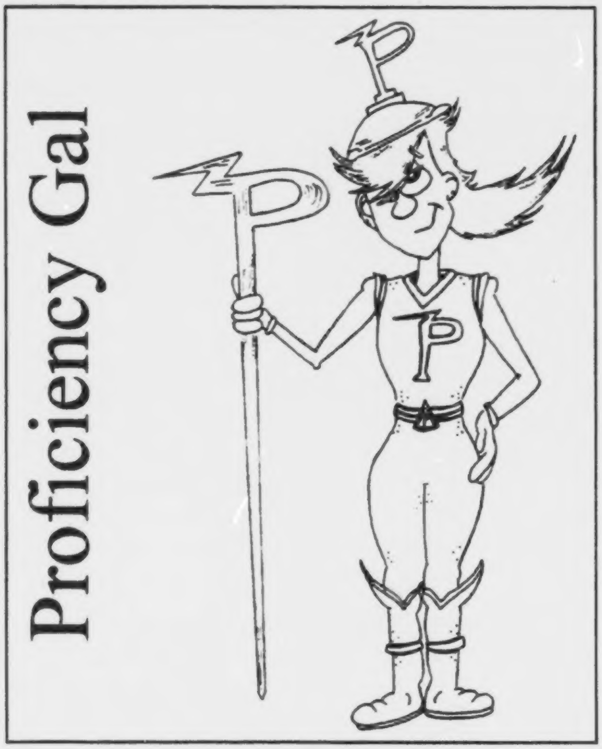
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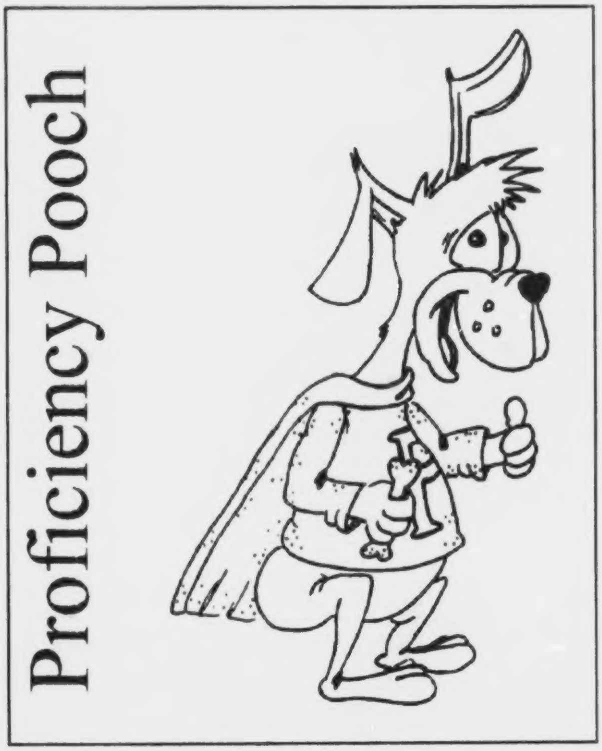
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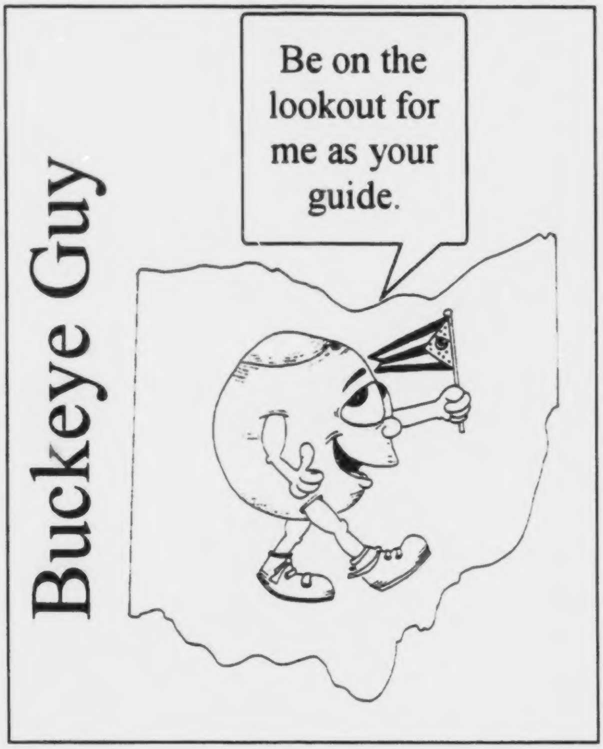
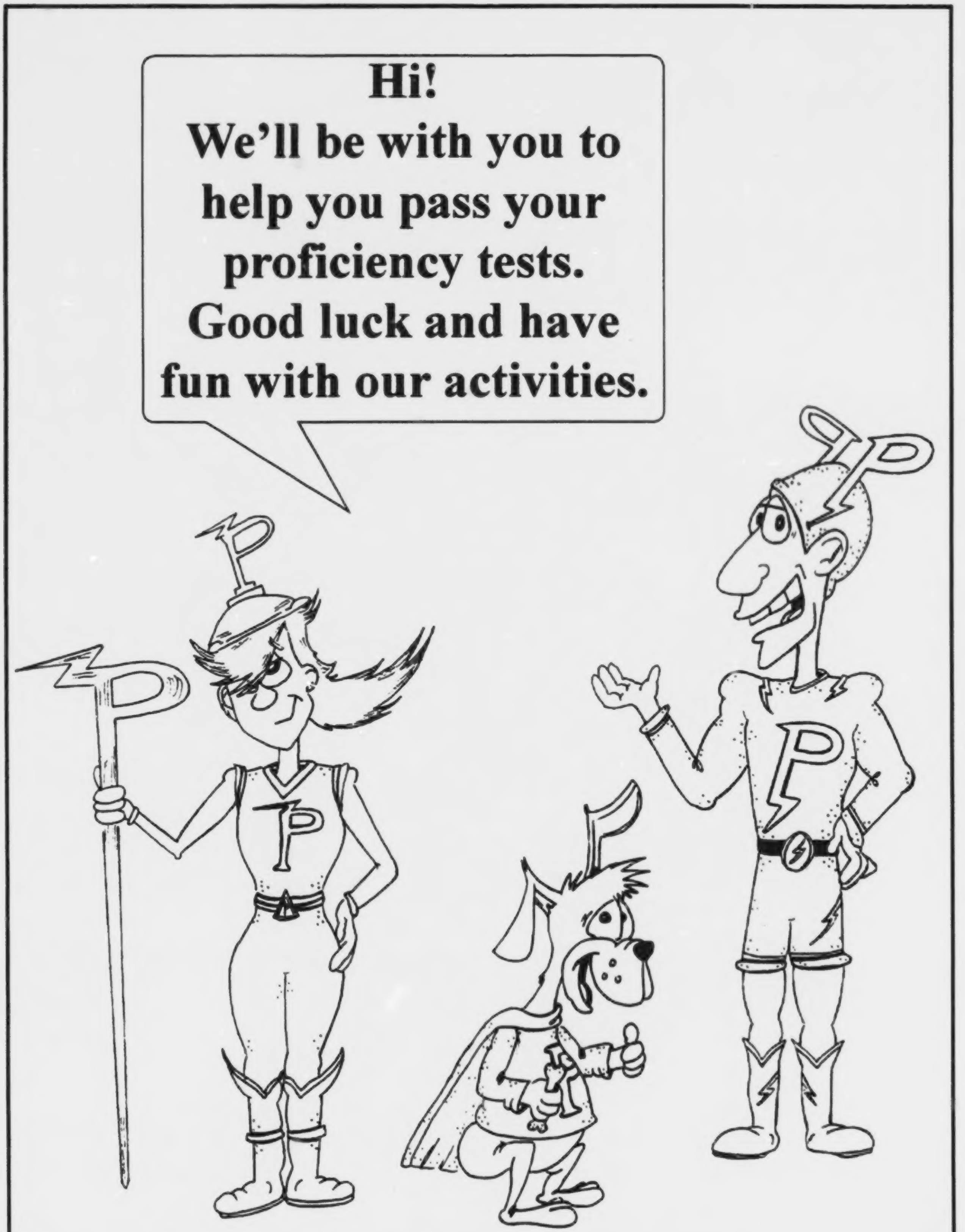

Buckeye Guy
Be on the lookout for me as your guide.


Hi! We'll be with you to help you pass your proficiency tests. Good luck and have fun with our activities.

WHAT WE NEED TO KNOW

1. Test date is the first Monday after March 15th for the 1995-1996 school year. The testing week will be March 18-22:

   March 18 - Writing
   March 19 - Reading
   March 20 - Math
   March 21 - Citizenship
   March 22 - Science

2. Students will have a maximum of two and one-half hours to finish each test.
3. All work must be done in the test booklet.
4. There are three types of questions: multiple choice, short answer, and extended response. Each multiple choice question has **three** responses, only one of which is correct.
5. Students may **not** use calculators, rulers, compasses, or protractors for the math test. They may **not** bring test helpers or manipulatives.
6. Students will **not** be permitted to use any reference materials. (Maps and charts must be covered or removed during the test administration.)
7. The short-answer and extended-response items and the two writing to the prompts, **must be legible to be scored.** (Cursive or printing will be permitted.)
8. Students who have been identified with IEP's will follow the recommendation of the IEP team and the adjustments and modifications stated in the IEP.

FOURTH GRADE PROFICIENCY TESTS
Number of Items and Points

	Total Items	Total Points
Writing	2 topics	8
Reading	35	42
Mathematics	45	54
Citizenship	45	54
Science	45	54

WRITING

Ee Pp
Nn Mm
Dd Ll
Aa
Bb Yy Gg
Cc
Hh Xx Ii
#2

Writing Goals

From a given prompt students will compare two different writings. The first writing will be one of the following: personal experience narrative story, a fictional narrative, a summary retelling or an informative report. The second writing will be either: a friendly letter, an invitation, a thank-you note, a letter to the editor, written directions, or journal writing.

The two writing activites need to have a clear message that shows:

STRAND I: CONTENT

- writing that stays on topic and uses details to support the topic.

STRAND II: ORGANIZATION

- an organized and logical response with a beginning, a middle, and an end.

STRAND III: USE OF LANGUAGE

- the use of a variety of words.
- the use of a variety of sentence patterns.
- correct use of vocabulary, homonyms, and words in context.

STRAND IV: WRITING CONVENTIONS

- correct spelling of commonly used words.
- readable writing in print or cursive writing.
- correct use of capital letters and end punctuation.

WHAT CAN STUDENTS EXPECT ON THE WRITING TEST PORTION OF THE PROFICIENCY TEST?

1. The students will be given one topic or stimulus which will direct two writing activities.

2. The test administrator will lead students through a script that will incorporate the language of the writing process:
   a. prewriting
   b. writing
   c. revising
   d. editing

3. A checklist based on a 4-point rubric scale is provided for the students to use to evaluate their writing. The test administrator will review the checklist in the script while students follow along.

4. Although ample space is provided in the test booklet for the prewriting activity, the prewriting activity will not be scored.

5. Students will use #2 pencils. Crossing out and erasing are permissible.

FIELD TEST POINTER:
On the limited field test from the spring of 1994, students experienced the most success with narrative writing; the lowest student performance was on exercises designed to elicit informational writing.

THE SCORING RUBRIC FOR THE FOURTH GRADE PROFICIENCY WRITING TEST

4-POINT SCALE

A 4-point response focuses on the topic and clearly addresses the purpose (mode), and has ample supporting details. It has a logical structure that flows naturally with a beginning, a middle, and an end. It has a sense of wholeness. It has an effective use of language with a variety of words and sentence patterns. It shows an awareness of word usage and spelling patterns in commonly used words. It exhibits the use of capital letters at the beginning of sentences and for proper nouns. It contains correct end punctuation.

A 3-point reponse is related to the topic and generally addresses the purpose (mode). It has adequate supporting details. It has a logical order with an apparent beginning, middle, and end, although some lapses may occur. It has word choices that are generally adequate and has sentences that are mostly complete. It shows an awareness of word usage and spelling patterns in commonly used words. It may have occasional word usage, spelling errors, and punctuation errors that do not interferre with the message. It has correct capitalization at the beginnning of sentences and for proper nouns.

A 2-point response attempts to address the purpose (mode). It demonstrates an awareness of the topic but may include extraneous or loosely related material. It includes some supporting details. It shows an attempt at organizing the paper around a beginning, middle, and end. It has limited vocabulary and has word usage and spelling errors that interfere with the message. It shows knowledge of capitalization at the beginning of sentences and for proper nouns. It shows knowledge of the conventions of punctuation.

A 1-point response may or may not attempt to address the purpose (mode). It offers few details and is only slightly related to the topic. It exhibits little or no evidence of an organziational structure; the beginning, middle, or end of the response may be poorly defined or nonexistent. It has limited or inappropriate vocabulary that obscures meaning. It has gross errors in sentence structure, word usage, and spelling that impede communication. It has frequent and blatent errors in basic puncutation and in capitalization at the beginnnig of sentences and for proper nouns.

PROCESS WRITING

In order to assist children with the steps in writing, a process has been developed. This five step program is to help children understand what is necessary to write something from the beginning ideas to the final publishable product.

1. **Prewriting** - Gathering your materials and your writing ideas.
2. **Write in rough draft form** - This is the material that is written for the first time in a journal or on a sheet of paper.
3. **Revision** - Adding, deleting, and changing the story.
4. **Editing** - Fixing the mistakes. Spelling, capitalization, grammar, etc.
5. **Publishing** - Making the story into the final product.

Gathered from attending the Conference for English and Language Arts Teachers, 1988.

SPELLING RULES

Very few spelling rules, or generalizations, are productive to teach. For a rule to be valid, it must apply to a large number of words and have few exceptions. The following are rules that meet this criteria.

SUFFIXES

Double the Final Consonant

- Double the final consonant before adding a suffix that begins with a vowel to a word that ends with a single vowel-consonant (get/getting).
- Double the final consonant before adding a suffix that begins with a vowel to a word that is accented on the final syllable and ends with a single vowel-consonent (permit/permitted).

Words Ending in Silent e

- Drop the final e before adding a suffix that begins with a vowel (have/having).
- Keep the final e when adding a suffix that begins with a consonant (late/lately).

Words Ending in y

- Change the y to an i when adding a suffix to words that end in the consonant-y unless the suffix begins with i (try/tried).
- Do not change the y to i when adding a suffix to words that end in the vowel sound of y (play/played).

PLURALS

- Add -s to most nouns to form plurals (friend/friends).
- Add -es to nouns ending with s, ss, sh, ch, or x (box/boxes, class/classes).
- Change the y to i and add -es to nouns ending in consonant-y (country/countries).
- Add -s to nouns ending with vowel-y (key/keys).
- Change the f for fe to v and add -es to some nouns ending in f or fe (half/halves, knife/knives).
- Some nouns change their spelling to make the plural (foot/feet).
- Some nouns are spelled the same for both singular and plural (sheep, sheep).

IDEAS FOR EVERYDAY WRITING

Students must write every day. Following are ideas to add variety to student's writing. Ask students to create and write . . .

- ads
- advice columns
- almanacs
- analogies
- announcements
- applications
- apologies
- autobiographies
- awards
- beauty suggestions
- bibliographies
- billboards
- biographies
- birth certificates
- book jackets
- book reviews
- books
- bulletins
- bumper stickers
- buyer's guide
- calendars
- catalogs
- campaign posters
- campaign speeches
- cartoons
- chain letters
- character sketches
- charts
- checklists
- comic strips
- comics
- commercials
- community newspapers
- comparisons/contrasts
- complaints
- conversations
- crossword puzzles
- definitions
- descriptions
- diagrams
- diaries
- dictionaries
- diets
- directions
- editorials
- epitaphs
- eponyms
- essays
- etymologies
- evaluation
- eyewitness accounts
- explanations
- expense reports
- fables
- fairy tales
- fictional stories
- folklore
- footnotes
- fortune cookie messages
- games
- ghost stories
- gossip columns
- graduation announcements
- graffiti
- greeting cards
- grocery list
- headlines
- histories
- horoscopes
- how-to articles
- idioms
- indexes
- inquiries
- insults
- interviews
- invitations
- itineraries
- jeopardy questions
- job applications
- jokes
- journals
- jump rope rhymes
- labels
- laws
- legends
- letters
- lists
- loans
- lyrics
- magazines
- mail order catalogs
- maps
- meeting minutes
- memos
- memoirs
- metaphors
- menu
- monologue
- movie reviews

continued on next page . . . .

MORE IDEAS FOR EVERYDAY WRITING

musical messages
mysteries
myths
narratives
newscaster's scripts
newspapers
news releases
notices
nursery rhymes
obituaries
odes
opinions
palindromes
pamphlets
paragraphs
parenting tips
passports
persuasive articles
pictorials
picture captions
plays
pledges
poems
postcards
posters
problems
proposals
proverbs
purchase receipts
puppet shows
puns
puzzles
quips
quizzes
questionnaires
quotations
rationales
reasons
rebuttals
recipes
recommendations
recreational ideas
regulations
remedies
reports
requirements
resumes
reviews
riddles
rules
safety tips
sales brochure
sample lessons
schedules
science fiction
score cards
sentences
sequel stories
sermons
signs
silly sayings
slogans
songs
speeches
sports play-by-plays
summaries
superstitions
surveys
tall tales
telegrams
telephone directories
tests
thank you notes
titles
tombstones
tongue twisters
tourist attractions
travel folders
trivia
TV shows
valentines
vitae
want ads
wanted posters
warnings
weather forecasts/reports
welcomes
who's who
wills
wishes
word games
word lists
word lore
year books
yellow pages

Writing a Story

When you write a story, you help your readers enjoy finding out about characters, places, and events. The guidelines below will help you write a story.

1. **Decide on the type of story you would like to write.** You might write about a funny or sad event, an adventure, or a mystery. Think of several story ideas and pick the best one.

2. **Plan your story.**
   - Decide who the characters will be.
   - Decide on the setting - where and when the story will take place.
   - Decide on a plot - what will happen at the beginning, the middle, and the end of your story.
   - Jot down notes or make a chart to name the setting, describe the characters, and list the main events in order.

3. **As you write and revise your story,** ask yourself:

   - Have I described the setting?
   - Have I told enough about the characters? Should I give them more or better dialogue?
   - Can I make the beginning more exciting?
   - Does the middle have enough events and details?
   - Does my ending bring the events together in a sensible and interesting way?

4. **Add a good title**. Think of a special way to publish a final copy of your story.

   - Combine it with art in a display or booklet.
   - Read it aloud or tape-record it.
   - Submit it to a class or school newspaper.

Writing Letters

Business Letters

Write a business letter to an organization or a company when you want to ask for information, to order a product, or to give your opinion of a product or service.

Here are the six parts of a business letter:

1. The **heading** gives the writer's address and the date.
2. The **inside address** is the address of the organization.
3. The **greeting** usually begins with Dear followed by a person's name, title, or the name of the organization. The greeting is followed by a colon.
4. The **body** is the main part of the letter. Your language should be businesslike and polite.
5. The **closing** is formal. Here are some common closings to use in a business letter:

   Sincerely yours, *Very truly yours,* *Respectfully,*

6. The **signature** is the writer's handwritten full name. Below it, print or type your full name.

Business Letter

123 Brook Road Santa Fe, NM 87501 August 15, 1991	**HEADING** Use capital letters and commas properly.
The Big Book Company 134 Main Street Westerville, OH 43801	**INSIDE ADDRESS** Use capital letters and commas properly.
Dear Big Book Company:	**GREETING**
Please send me your catalogue. I enclose $1.00 to cover the mailing costs.	**BODY**
Sincerely,	**CLOSING**
Robert Jackson Robert Jackson	**SIGNATURE**

Writing Letters

Friendly Letters

Write a friendly letter when you want to share news or good wishes, to say thank-you, to invite someone to a party, or to give a get-well wish.

Here are the five parts of a friendly letter:

1. The **heading** gives the writer's address and the date.
2. The **greeting** usually begins with Dear followed by the name of the person you are writing to. The greeting ends with a comma.
3. The **body** is the main part of the letter. It includes one or more paragraphs.
4. The **closing** ends the letter. The first word is capitalized. The closing ends with a comma. Here are some closings:

Yours truly,
Your friend,
Love,
Very truly yours,
Always,
With best wishes,
Sincerely yours,

5. The **signature** of the writer is added last.

Friendly Letter

123 Brook Road Santa Fe, NM 87501 May 12, 1991	**HEADING** Use capital letters and commas properly.
Dear Frank,	**GREETING**
I hope you can visit me this summer. We can have barbecues and go swimming in the pool. I can't wait to have you meet my friends. Please write to tell me you're coming.	**BODY**
Your cousin,	**CLOSING**
Betsy	**SIGNATURE**

Writing Checklists

Summary

I will earn my best score if:

- ☐ My summary has an introduction which identifies the topic.
- ☐ My summary states the main ideas in order.
- ☐ My summary has a conclusion.
- ☐ I try to spell all words correctly.
- ☐ I start all my sentences and any proper nouns with a capital letter.
- ☐ I end all my sentences with a period, an exclamation point, or a question mark.

Directions

I will earn my best score if:

- ☐ My set of directions begins with a topic sentence that tells what my writing explains how to do.
- ☐ My set of directions clearly states the materials needed.
- ☐ My set of directions uses step-by-step order to tell what to do first, next, and so on.
- ☐ My set of directions explains each step clearly and completely.
- ☐ My set of directions has a concluding sentence which indicates the end of the process.
- ☐ I use time order words (first, next, finally) that make my meaning clear.
- ☐ I try to spell all words correctly.
- ☐ I start all my sentences and any proper nouns with a capital letter.
- ☐ I end all my sentences with a period, an exclamation point, or a question mark.

More Writing Checklists

Personal Narrative (Story)

I will earn my best score if:

☐ My personal narrative has a beginning, middle and end.

☐ My personal narrative tells about one memorable event in my life.

☐ I use a variety of words.

☐ I use a variety of sentence patterns.

☐ I try to spell all words correctly.

☐ I start all my sentences and any proper nouns with a capital letter.

☐ I end all my sentences with a period, an exclamation point, or a question mark.

Retelling

I will earn my best score if:

☐ My retelling begins with an introduction.

☐ My retelling gives time and place.

☐ My retelling names the main characters and identifies other characters.

☐ My retelling identifies the story problem.

☐ My retelling identifies the major story events.

☐ My retelling identifies how the story problem(s) was solved.

☐ My retelling has an ending.

☐ My retelling relates the story in order.

☐ I try to spell all words correctly.

☐ I start all my sentences and any proper nouns with a capital letter.

☐ I end all my sentences with a period, an exclamation point, or a question mark.

More Writing Checklists

Letter to the Editor

I will earn my best score if:

☐ My letter to the editor begins with a greeting.

☐ My letter to the editor clearly states my opinion on a subject.

☐ My letter to the editor includes at least two reasons to back up my opinion.

☐ My letter to the editor attempts to convince or persuade the readers.

☐ My letter to the editor uses the words "you" and "we" to draw the readers in and make them feel included.

☐ I try to spell all my words correctly.

☐ I start all my sentences and any proper nouns with a capital letter.

☐ I end all my sentences with a period, an exclamation point, or a question mark.

Letter of Invitation

I will earn my best score if:

☐ My letter of invitation has a greeting, body, and closing.

☐ My letter of invitation tells WHAT the event is, WHEN it is, and WHERE it is.

☐ My letter of invitation tells the reader what to do to accept or refuse the invitation.

☐ I try to spell all words correctly.

☐ I use a variety of words.

☐ I use a variety of sentence patterns.

☐ I start all my sentences and any proper nouns with a capital letter.

☐ I end all my sentences with a period, an exclamation point or a question mark.

More Writing Checklists

Thank You Note

I will earn my best score if:

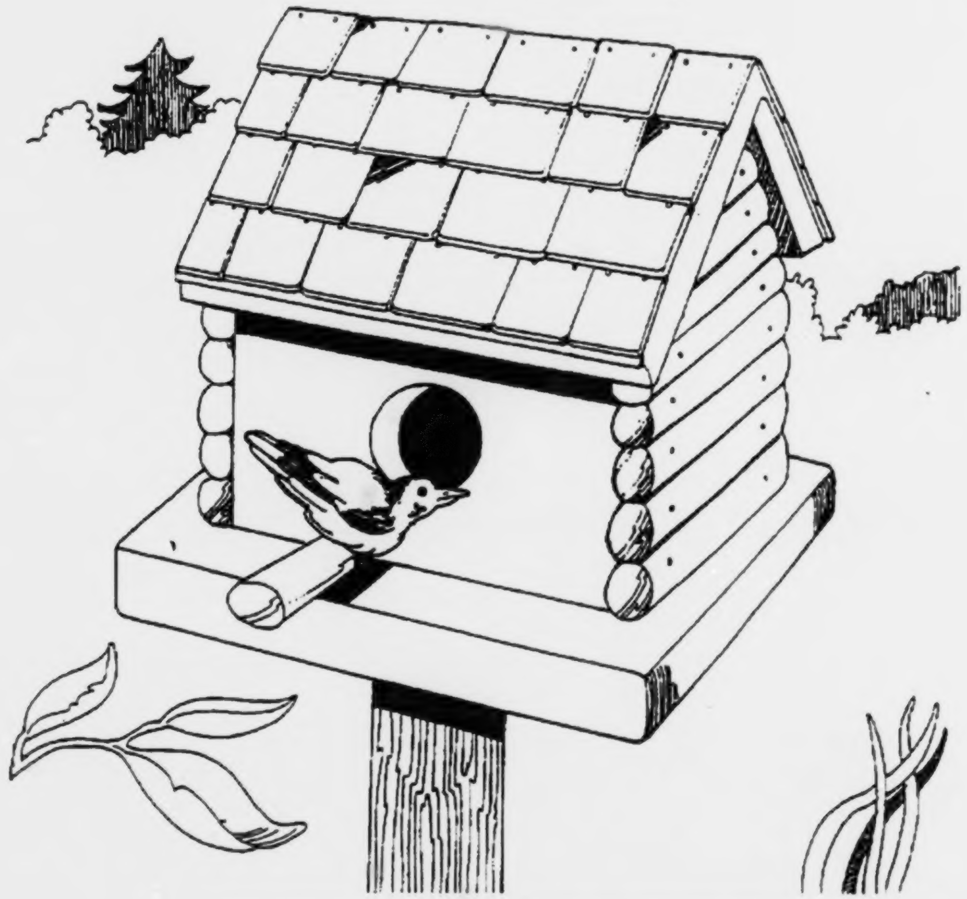
- ☐ My thank-you note clearly states what the thank-you is for.
- ☐ My thank-you note has a greeting, body, and closing.
- ☐ My thank-you note is sincere, brief, and pleasant.
- ☐ My thank-you note mentions how I will use what was received (gift, etc.) or describes my feelings (hospitality, favor).
- ☐ I try to spell all words correctly.
- ☐ I start all my sentences and any proper nouns with a capital letter.
- ☐ I end all my sentences with a period, an exclamation point, or a question mark.

I'm ready.
Are you?

Writing

How-To Guide

Look at this picture. Imagine the steps that the builder went through to create the birdhouse. What materials did the builder need? Write a how-to guide for building this birdhouse. Write the guide for someone who is a few years younger than you. As a prewriting technique, you might want to make a flow chart that lists the steps in order. When you revise, you might want to compare your draft against your flow chart to make sure that your steps are in order.



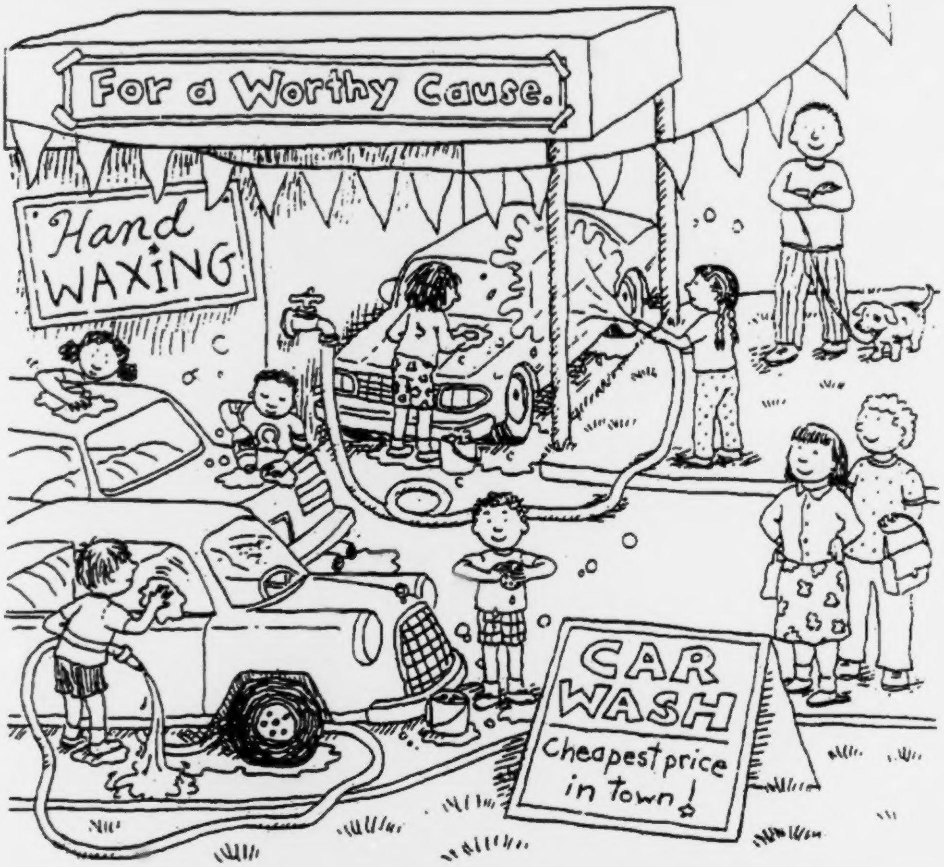
Did You Know . . .

. . . that the cardinal is our state bird? What are some other bird's common to Ohio?

Writing

Persuasive Letter

Image that a car wash is being conducted by your class to raise money for some worthy cause. Write a letter to the residents of your town telling them the purpose for raising the money. In your letter, indicate why residents should take advantage of the car wash rather than one at a local garage. As a prewriting technique, you might want to make a list of possible reasons for the residents to come. When you revise, you might want to compare your draft to your original list to make sure you have given the strongest reasons.


For a Worthy Cause.
Hand WAXING
CAR WASH
Cheapest price in town!

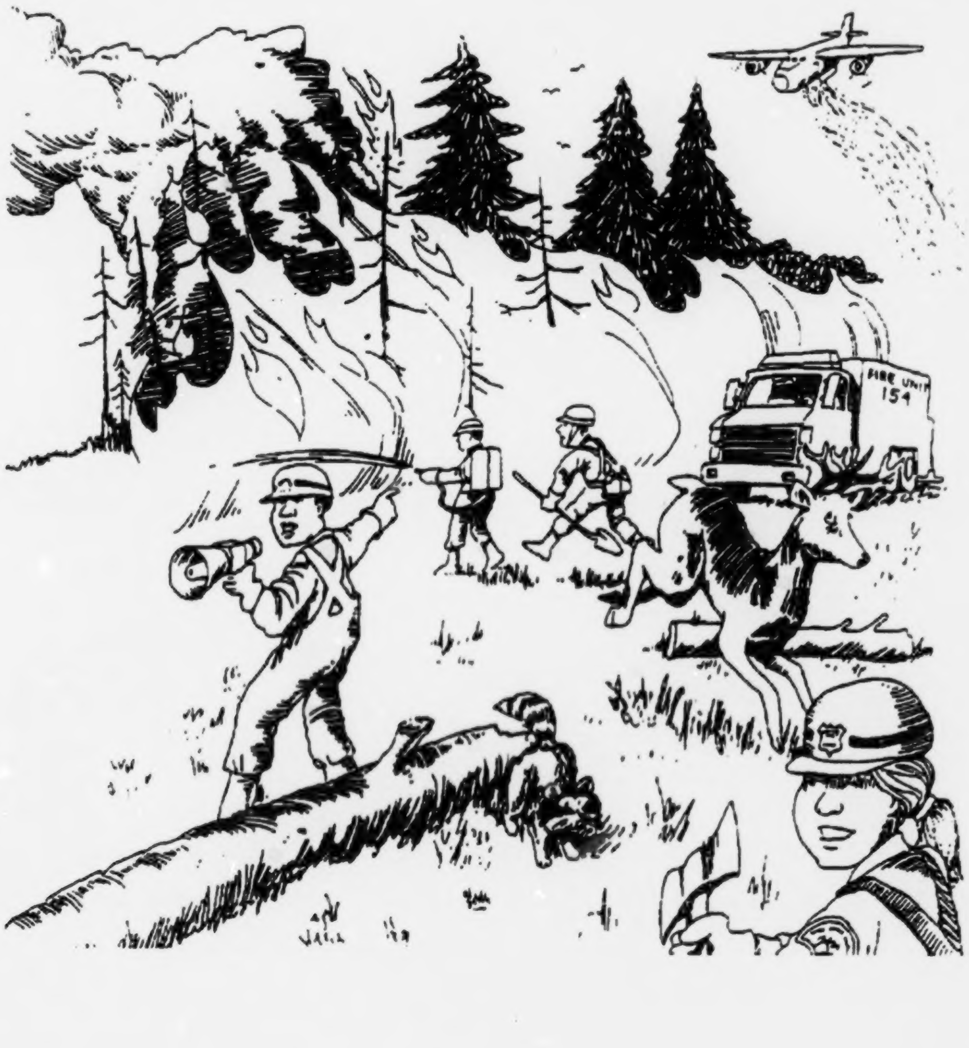
Follow Buckeye Guy's lead to find more information on this topic.

Think about taking a trip to the Crawford Auto Museum in the University Circle area to see some interesting automobiles.

Writing

Tell It Like It Is

Look at this picture. Write a story based on what you see in it. Write your story to a friend. As a prewriting technique, you might want to use a story chart in which you outline settings, characters, events, problem, and solution. When you revise, you might want to close your eyes and visualize the major events in the story. Then look at what you have written to see if you need to elaborate on any of the events.



Writing

Name That Mark

Using a variety of punctuation marks takes time and practice. Using correct punctuation also requires developing an ear for language. As a fact, in this activity, you will hear and feel each punctuation mark because each one will be assigned a clue.

First, allow each sound to represent each punctuation mark. For example, a pop of a tongue and a right hand going up means a period, a hand clap and the left-hand waving stands for a comma, and a whistle and standing up sound means a question mark. Practice the sounds as you read through a story silently, as you plan to read it aloud.

After you have rehearsed the story and feel comfortable with noisy punctuation, read the story to someone without telling why you are making strange sounds and motions.

After reading, ask what each of the sounds and hand and body motions. Once the listener gets the knack, invite the listener to make the sounds and motions and to create a group of punctuation sounds of his own.

30 Minute Workout

Watch a 30 minute TV show that has a story. After the program ends, retell the story. Remember to include the beginning, all the happenings in the middle, and the ending. Do this weekly. As you get better at this, write it instead.

Follow the Leader

Take turns explaining aloud how to make something (crafts, recipes, models, sandwiches). Then write these instructions down. Give the directions to someone else to follow.

Give Me Five

After seeing a movie, TV show, returning from vacation, or reading a book, list five reasons why it was enjoyed. I liked it because . . . .

Getting The Pencil Moving

Lunch Notes. Have a lunch box conversation. Place notes in the lunch pail and encourage replies.

Vacation News. Whenever your family takes a vacation or short trip, keep a log describing the roads, the stops, the food, and problems. Encourage all family members to participate.

Drop in. When appropriate, write thank you notes, birthday greetings, and get-well cards with your child.

Always revise the work and give special attention to the capitalization and punctuation.

Did You Know . . .

. . . that the city of Cincinnati furnished Harriet Beecher Stowe with the characters she used in Uncle Tom's Cabin?

Writing

Message Center

Your child can take phone messages on a piece of paper. One week in cursive, one week in print.

Discuss what information is important when taking a telephone message.

Do a sample message together. For example:

April 25	DATE
8:05 p.m.	TIME
Mom,	GREETING
Aunt Marilyn called. Call her back tonight.	MESSAGE
Jim	SIGNATURE

Decide what type of writing (cursive or print) will be done for the week.

Don't forget that a special pad of paper needs to be near the phone. "Post-its" would be great. Make sure it is large enough for their writing.

Presto Chango

Read aloud a story but stop before the ending. Have your child write an ending for the story. Then retell the whole story with the new ending on it. Finally read the rest of the story and compare.

Follow Buckeye Guy's lead to find more information on this topic.

Charles Exra Scribner invented the telephone switchboard. He is from Ohio. Did you know that Alexander Graham Bell invented the telephone? Learn more about inventors by visiting the Inventor's Hall of Fame in Akron, Ohio — INVENTURE PLACE.

Writing

The Big Scoop

1. Ask your child to find a newspaper article on a local event in your community (use papers from your recycling pile or go to the library).
2. Ask your child to silently read the article, offering assistance when asked or ask your child to read orally to you filling in the difficult words if necessary.
3. Discuss the contents of the article.
4. Prepare to write a summary in paragraph form. Help your child fill in an organizer sheet (Activity Sheet pg. 25).
5. Ask your child to put ideas for a topic sentence in the middle oval and ideas for summary sentences of the article's beginning, middle, and end in the surrounding ovals.
6. In the final oval include information to summarize or close the paragraph.
7. Go over the contents of the organizer with your child offereing suggestions as needed. Allow your child to transfer the information from the ovals to a written paragraph paying attention to the correct use of capital letters and periods. Make sure all words make sense.

Extension:

1. Make a scrapbook of paragraphs written in this way of local events from the paper over time.
2. Use the same technique to construct a letter-to-the-editor written by your child about a particular article he or she has read (pay special attention to including a greeting, body, and closing). Such a project would probably include 2 or more paragraphs.

Autobiographies of Inanimate Objects

Draw a picture of an object (shoe, spoon, toothbrush). Pretend you are this object. Tell about your life as this inanimate object.

Topics you might include about your object:

- What are you and what do you look like?
- How are you treated by people . . . good/bad?
- What is your purpose in life? Why were you made, and how do you help people?
- Go through the entire day as your object.
- Do you like your life as what you are?

List It

As you make out your shopping list, perhaps your child can help you by writing out the list for you. Monitor your child's writing so it is legible.

HINT: Lined paper works best.

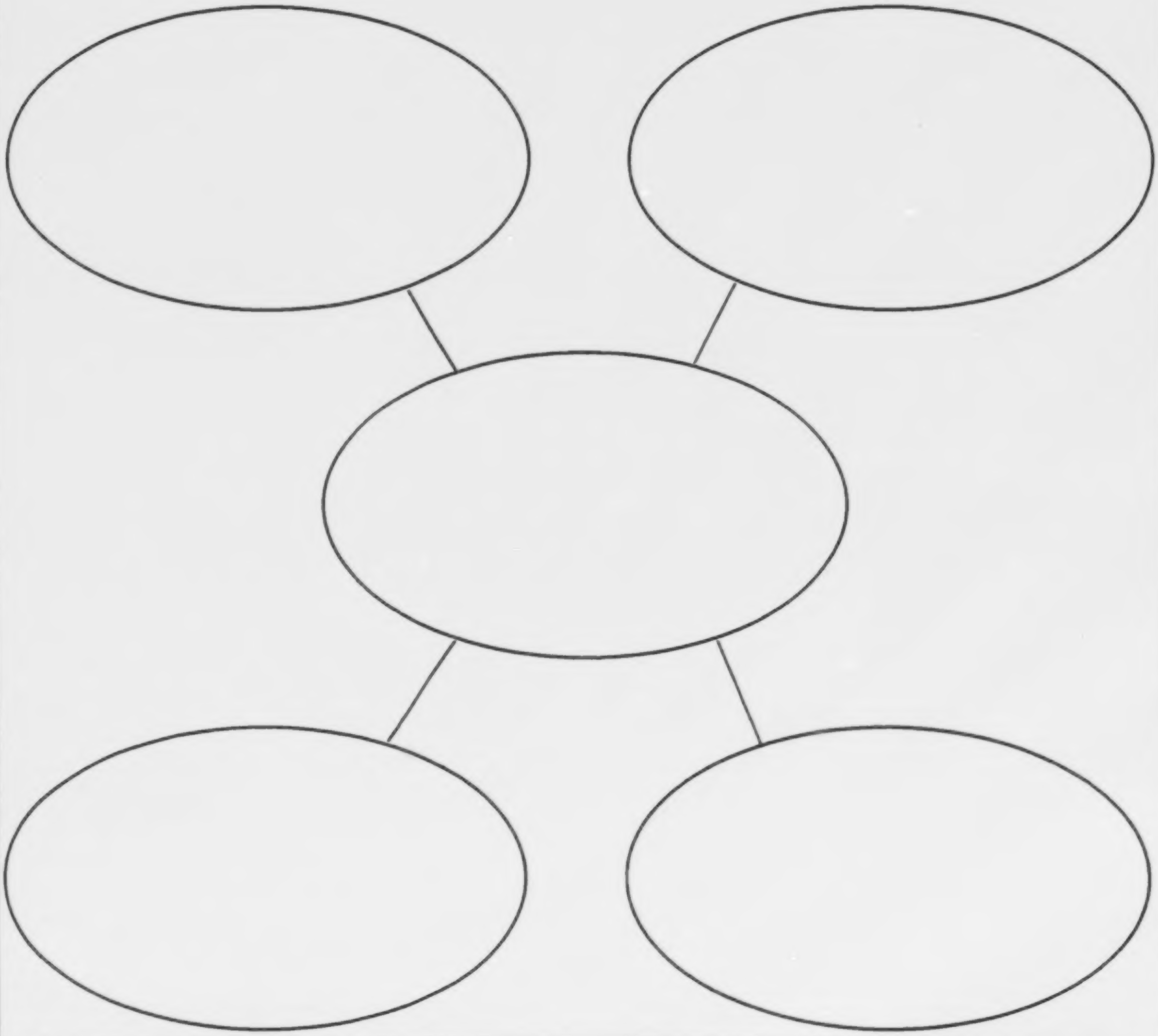
Drop Me A Line

On the next trip or mini-trip, purchase some postcards to be written to Grandma or another person to whom your child would be interested in writing. On the postcard, instruct your child to write the day's activities from start-to-finish - covering only the most important events. It would be imporatnt to have complete sentences, too.

Name ______________________________________

Topic ______________________________________

★★★ Choose one main idea (topic) and write it in the center of your web.
★★★ Write one detail, that tells about your main idea, on each outer section of your web.
★★★ Think of a topic sentence about your main idea.
★★★ Think of a complete sentence for each detail that tells something about your main idea.
★★★ Put your detail sentences in the order you think sounds best.
★★★ Think of a closing sentence.
★★★ Write your sentences in paragraph form. Be sure to indent your first sentence.



Writing

Can I Come?

1. About a month before a special event your family will be celebrating, take a trip to a card shop and look at the invitations.
2. Discuss with your child what kinds of information is commonly required when you are asking someone to join you for this special event.
3. Ask your child to design a cover for an invitation to a designated event.
4. Tell your child to write the inside of the invitation also. Be sure to include:
   - What the event is/who it is for
   - When: day, date, and time
   - Where
   - R.S.V.P.* information (optional)

* R.S.V.P. stands for the French phrase répondez síl vous plaît meaning "please answer."

Extensions:

1. Make a variety of invitations.
2. Make photo-copy invitations adding your own color to the covers.
3. Take the invitation to a local printer and have them print your child's original work.
4. Have your child address the invitations to mail or hand deliver. Don't forget ZIP codes and return addresses!
5. If you own a computer try your own design!

* * *

Dog Gone Pets

Imagine that you have a wonderful pet that you adore. Unfortunately, this pet keeps getting into trouble. Write about one time that your pet got you both into trouble. Maybe, for you, this story really happened.

Did You Know . . .

. . . about this one?

Dog Breath!: The Horrible Trouble With Hally Tosis.

by Dav Pilkey

Writing

Comparison and Contrast

Play a game to develop skill in comparison and contrast. Have your child compare and contrast two rooms in your home. How would your child organize this information? Your child could take you on a tour, comparing and contrasting the two rooms in terms of function, appearance, and so on.

Write to Dream

Dream Poem - Write the letters of the word DREAM down the left side of a sheet of paper. Use each letter to begin a line of a poem about something you dream of doing.

Making Dreams Come True - Write a paragraph about what you have to do to make a dream come true.

The World of Your Dreams - Write a paragraph about the kind of world you dream of living in.

In the Future - Imagine it's fifteen years from today. Write about where you are and what you are doing.

Follow Buckeye Guy's lead to find more information on this topic.

Visit a library or use the internet to research the topic of the brain and how it works. Include dreaming. Share what you learned with your friends at school.

Express Ideas

Help your child create an imaginative story. Take a coin from your pocket and together imagine all the places the coin has been and all the people's lives through which it has passed. Have your child tell the life story of the coin.

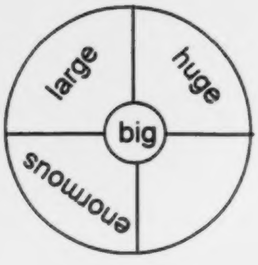
Ruler of the Castle

You and your friends are building a giant snow castle. It will be big enough for you to stand inside. Write a paragraph about this castle. Tell what it will look like when you finish it. How many people can stand in it? How tall is it? Are there any secret hiding places? Describe any parts you have built.

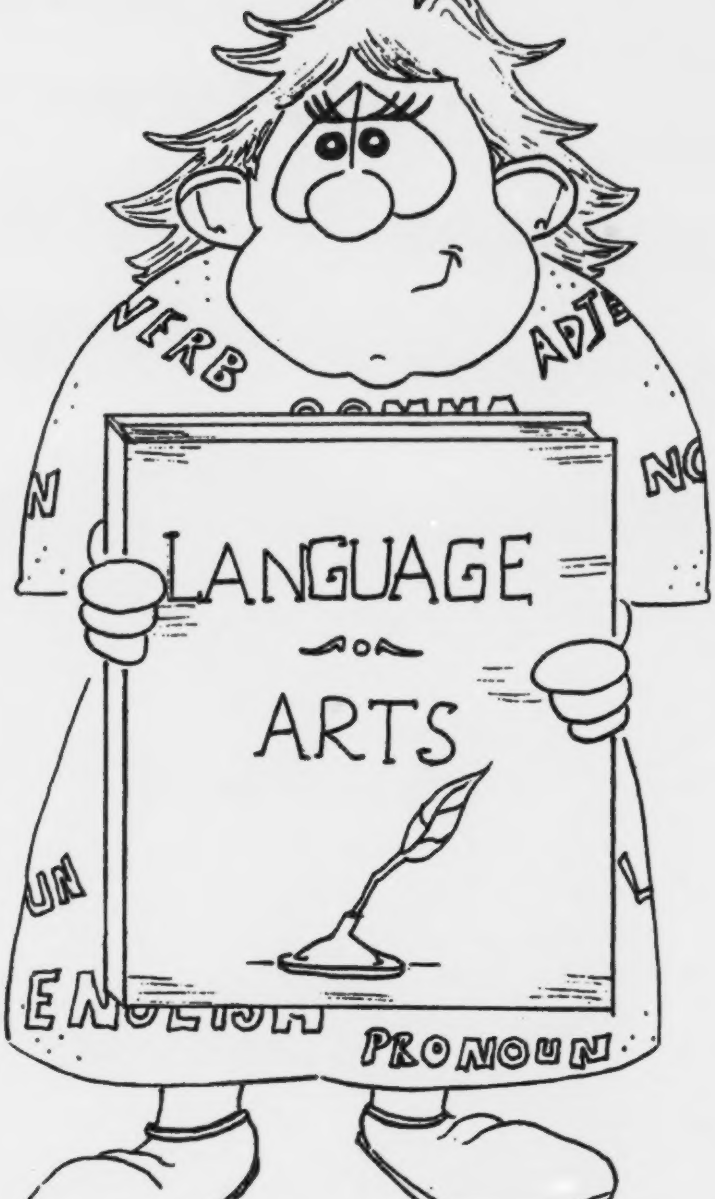
Writing-Word-a-saurus

Materials: paper, construction paper, tag board or cardboard, marker/pen

Cut small circles from paper. Write the word you have chosen to learn more about in the center. Divide the outer part into sections. Look up synonyms (similar meanings) for the word and write in the sections. Use the word-a-saurus cards as a resource for more creative writing.



READING


VERB
ADJE
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N
LANGUAGE
ARTS
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L
ENGLISH
PRONOUN

Reading Goals

Given a fiction story or poem to read silently, we will show an understanding of langauge and the parts of fiction/poetry by answering items in which we:

STRAND I: CONSTRUCTING MEANING

- Summarize the text.
- Use graphs, tables, or illustrations to locate or interpret information.
- Show an understanding of the story or poem by retelling it in writing in our own words.
- Show an understanding of vocabulary (words, phrases, and expressions) important to the meaning of the story or poem.

When given a story to read silently, we will show an understanding of language and parts of a story or poetry by answering questions in which we:

STRAND II: EXAMING AND EXTENDING MEANING

- Look for the following elements: characters, problem, solution, plot and point of view.
- Learn something from a story not directly mentioned.
- Look for things in two or more stories that are either the same or different such as characters, settings (where the stories take place), and events (things that happen in the story).
- Answer specific questions about the story.
- Know how to choose the correct library resources to find specific information.
- Know how to choose fiction and nonfiction materials to solve problems and make decisions.
- Show an understanding by predicting what will happen next in a story.

STRAND III: CONSTRUCTING MEANING

- Rewrite a story in a shorter form.
- Use tables, graphs, and pictures to get information.
- Retell a story in our own words to show understanding.
- Show which words, phrases, and expressions are important to the meaning of a story.
- Can repeat words, phrases, or expressions in our own words.

When reading non-fiction we will show an understanding of language and parts of the story by answering questions in which we:

STRAND IV: EXAMINING AND EXTENDING MEANING

- Know the difference between major and supporting ideas.
- Talk about: compare and contrast, cause and effect, fact and opinion.
- Learn something from the story which has not been directly mentioned.
- Answer specific questions about the story.
- Choose the correct library resources to find specific information.
- Choose fiction and nonfiction materials to solve problems and make decisions.
- Choose the best resources and materials to solve a problem and make a decision.
- Show an understanding by predicting what will happen next in a story.

Reading Glossary Terms

story element - a part of a story. The most common element that are studied at the elementary level are the following:

- **character** - people or objects in the story.
- **problem** - the main issues of the story.
- **solution** - how the problem is taken care of (or) important changes in a story.
- **plot** - what happens to characters in a story
- **point of view** - through whose eyes the story is told (such as told through the "I" form, or "me" form), or through the thoughts and feelings of characters.

fiction - stories that are not real (made up or imagined).

non-fiction - most of the writing we read in newspapers, magazines and textbooks.

poetry - words put together in a more creative style than regular speech often in rhyme.

narrative - a piece of print in story form.

POWER READING TIPS FOR PARENTS

by: Lee Canter

How to Power Read

Strong reading comprehension skills are the basis for success in all subject areas. You can help your child develop these skills with Power Reading. Power Reading is a technique that will help your child become a better reader by increasing both reading comprehension and listening comprehension skills. A Power Reading session takes only about fifteen minutes.

Here's how to do it:

1. **Read to your child**
   Read aloud to your child for five minutes. Be sure that the book from which you are reading is at your child's reading level. If you are unsure about choosing a book, ask your librarian or child's teacher for help. Pronounce words carefully and clearly, and make appropriate pauses for periods and commas.

2. **Listen to your child read.**
   Have your child continue reading the same book aloud. (He or she should begin at the point where you stopped reading.) Remind your child to take it slowly and read so that the words make sense. ***Caution: Do not stop and correct your child while he or she is reading. If your child stumbles on a word, make a note of it and go back later.***

3. **Ask questions about the material that was read.**
   Check how well your child was listening and reading by asking general questions about the material you read aloud. Talk about what was read. Share ideas.

Hold a Power Reading session with your child as often as possible. It is an excellent way to improve reading skills and an excellent way to show your child the importance you place on reading. Many families have found Power Reading to be an enjoyable way to read together on a regular basis. Start a book that is of particular interest to your child and continue using the same book for Power Reading sessions until it is completed. Your child will be even more motivated to join you in Power Reading when he or she is eager to find out what happens next.

FOR PHONICS

There are 26 letters in the alphabet. 21 letters are called consonants. 5 letters (a, e, i, o, u) are called vowels. In some word *y* acts as a vowel (sky, try, cry).

Every word in our language has at least one vowel sound.

Every syllable in a word will have a vowel SOUND. A syllable is a word part. Elephant has 3 vowel sounds therefore it has 3 syllables. El-e-phant.

Vowels usually make a long sound or a short sound. When a vowel is long, it says its own letter name. For example: long ***a*** makes the sound you hear in cake, baby, and raid.

When 2 vowels are beside each other in a word (boat), the first vowel is usually long, and the second one says nothing. Examples: coat, eagle, pain, suit.

When a word ends in ***e*** and has one other vowel, the other vowel is usually long. For example: lake, cake, mole, Pete, bite, cube.

When a word (or syllable) has only one vowel, and it comes at the end of the word, it is usually long. Examples: he, go, we, hi, si/lent, to/tal, re/ward.

Short vowels make the sounds you hear in the following words: short ***a*** = apple; short ***e*** = elephant; short ***i*** = pig, short ***o*** = ostrich; short ***u*** = cup.

When you see the pattern of a consonant, then a vowel, then another consonant in a word, the vowel is usually short. Example: cup, mud, ship, clock, rat, cap, best, let.

If a word has only one vowel and it comes at the beginning of a word, it is usually short. Examples: at, egg, in, odd, us.

A consonant blend is two or more consonants in a row sounded together so that each consonant can be heard: ***bl, tr, sw, spr, st, sp, fr, fl, nt, mp, lk***, etc.

A consonant digraph is 2 or more consonants that are side by side that when sounded together form a new sound: ***ch, sh, wh, th, ph, kn, wr, gh, ck***, etc.

A diphthong is two vowels side by side that are blended together to make a new sound such as in: toy, boil, sound, knew.

A compound word is two whole words put together such as: dog + house = doghouse, snow + ball = snowball, fire + man = fireman, flag + pole = flagpole.

Antonyms are words that have opposite meanings like: up and down, hot and cold, in and out, etc.

Synonyms are words that have the same meaning or almost the same meaning. For example: bright and shiny, black and ebony, tall and high.

Homonyms or homophones are words that sound exactly alike but mean different things and are spelled differently: rain and reign, in and inn, hi and high, to, too, two.

A base word is the word you start with before you add a prefix or suffix. A base word can also be called a root word. ***remake*** = the base word is make; ***beautifully*** = the base word is beautiful.

. . . continued on next page.

A prefix is a word beginning such as: re-, de-, pre-, uni-, etc.

A suffix is a word ending such as: -ly, -tion, -able, -er, -ed, -ing.

To add a suffix to a base word:
- when a short vowel word ends in a single consonant, usually double the consonant before adding a suffix that begins with a vowel — running, hammer, matter.
- when a word ends in silent ***e***, drop the ***e*** before adding a suffix that begins with a vowel — taped, latest, baking.
- when a word ends in ***y*** with a consonant before the ***y***, change the ***y*** to an ***i*** before adding a suffix other than ***ing*** — bunnies, happily, tried.

Y at the end of word usually has the long ***i*** or long ***e*** sound. When ***y*** is at the end of a one syllable word, it has the long sound of long ***i***. (fry, shy, try). When ***y*** is at the end of a two or more syllable word, it usually has the sound of long ***e*** (pretty, lady, funny).

Soft ***c*** and ***g*** rule: when ***c*** or ***g*** is followed by ***e, i,*** or ***y***, it is usually soft — city, change, ice.

When ***c*** precedes ***e, i,*** or ***y***, the sound of ***c*** is usually soft (as ***S***); in other cases, it is usually hard as ***K***. (Examples: city, cent, cedar, cyclone, cigar).

When ***g*** precedes ***e, i,*** or ***y,*** the sound of ***g*** is usually soft (as ***j***); in other cases, it is usually hard as ***g***. (Examples: gem, gypsy, giraffe, gym, engine).

Singular means one of something like: cat, dog, shoe. Plural means two or more of something like: cats, dogs, shoes.

When short words end in a consonant followed by ***e***, usually the ***e*** is silent and the preceding vowel is long. (Examples: gate, pole, use, like, pale).

When two vowels come together in a word or syllable, usually the first is long and the second is silent. (Examples: nail, grain, clean, goat, beat).

If the only vowel letter is at the end of a word or syllable, the letter usually stands for a long sound. (Example: cry, he, fly, go, me).

The sound of a single vowel letter is at the end of a word or syllable ending in a consonant is usually short. (Examples: hot, met, at, bag, rug).

When a single vowel letter in a word or accented syllable is followed by the letter ***r***, the ***r*** usually controls the vowel sound (Examples: birth, first, her, fur, car, for).

When ***a*** is followed by ***l, w,*** or ***u,*** the sound of ***a*** is usually neither long nor short and usually takes the sound of ***au***. (Examples: also, auto, crawl, call, author).

When two consonants come between two vowels in a word, the syllable division usually comes between the two consonants. (Examples: per/haps, let/ter).

When one consonant comes between two vowels in a word, the syllable division usually comes before the consonant. (Examples: va/cant, stu/dent).

When the last three lettters of a word are a consonant followed by ***le***, usually the final syllable consists of the consonant and the ***le***. (Examples: ma/ple, a/ble). Exceptions to this rule: The pickle family of words: pick/le.

Reading

Since Hanna Moved Away

This selection is a poem. The poem tells how it feels when someone moves away.

Since Hanna Moved Away

by Judith Viorst

The tires on my bike are flat.
The sky is grouchy gray.
At least it sure feels like that
Since Hanna moved away.

Chocolate ice cream tastes like prunes.
December's come to stay.
They've taken back the Mays and Junes
Since Hanna moved away.

Flowers smell like halibut.
Velvet feels like hay.
Every handsome dog's a mutt
Since Hanna moved away.

Nothing's fun to laugh about.
Nothing's fun to play.
They call me, but I won't come out
Since Hanna moved away.

Did You Know. . .

. . . that Judith Viorst not only writes poetry and books for children, but also writes articles for magazines read by adults?

1. How does the speaker in the poem feel now that Hanna has moved away?

2. List some things in the poem that help you know how the speaker feels.

3. Does chocolate ice cream really taste like prunes? Why do you think the speaker says that?

4. How does the speaker feel about Hanna?

5. What is the poem saying about friendship?

Reading

Books Are Not the Only Ones

Charts, tables, and graphs are important reading tools. Even baseball cards or T.V. guides from the newspaper can be important ways to help us in reading.

As you use the T.V. guide, here are some questions.

- What time does the news start on TV8?
- What is on Channel 5 at 8:00 tonight?
- What channels have the same kind of programs on at the same time?

Baseball cards can be used the same way, when your child is looking at averages, RBI's, etc.

Say It Again

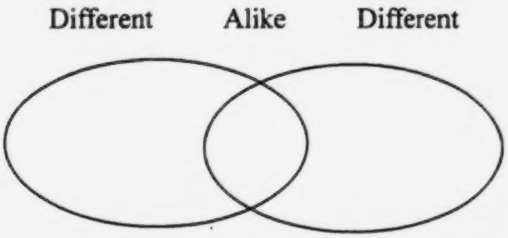
Encourage your child to retell directions after reading them.

Have your child read the back of convenience foods and the directions. Have your child retell you the directions in their own words.

The same can be done with recipes from books or newspapers, back of shampoo bottles, toothpaste tubes, etc.

The Same or Not the Same

Find two different items in your house. Two kinds of fruit or vegetables, two different kinds of chairs, etc. Study these items. How are the items alike? How are they different? Fill in the diagram to show their similarities and differences.



Did You Know. .

. . . that when you read an article from a newspaper or magazine, you should be able to find the who, what, when, where, and why of the story?

Reading

The Ending is Up To You

After reading a story, make up a different ending for the story.

What Is Your Favorite Genre?

Your child is learning about the *genres* (kinds) of literature. Over the next month/year track the genre your child likes the best by coloring in a box on the bar graph after reading the book. As you are reading throughout the month/year you may also like to compare the various genres - how are they different; how are they alike.

Fiction/Nonfiction/Folktales/Science Fiction/Historical Fiction/Poetry/Realistic Fiction/Biographies

10								
9								
8								
7								
6								
5								
4								
3								
2								
1								
	fiction	nonfiction (true stories)	folktales/ fairy tales	science fiction	historical fiction	poetry	realistic fiction	biographies

Did You Know. . .

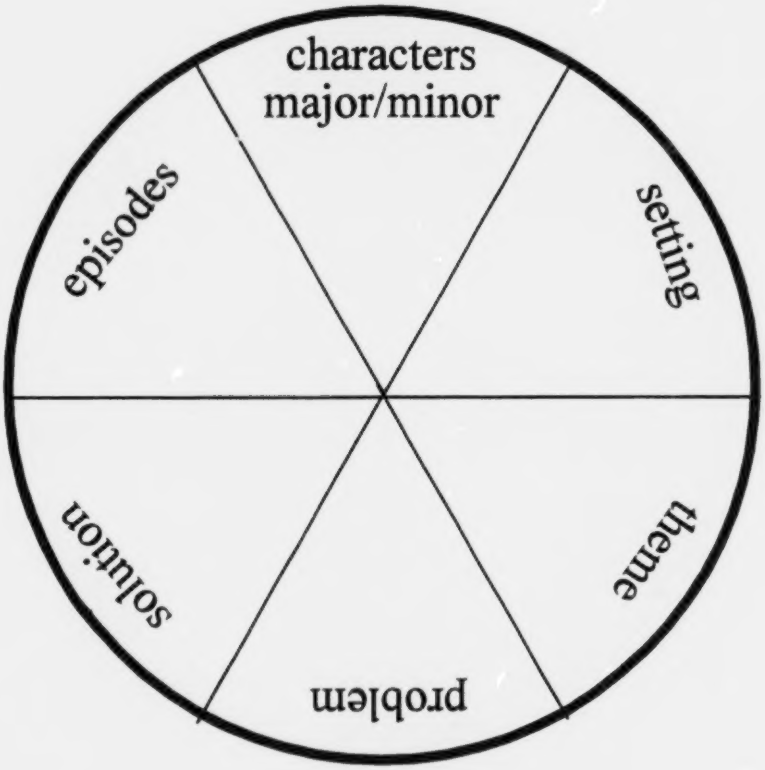
. . . that there are some good books to use in order to change the endings?

1. Pearl's Promise, Frank Asch.
2. Indian in the Cupboard Series. Lyn Reid Banks
3. George's Marvelous Medicine, Ronald Dahl
4. My Teacher is an Alien, Bruce Coville
5. Tuesday, David Weisner (on this book try to rewrite the whole story.)

Reading

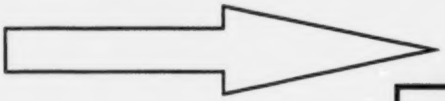
Story Grammar Wheel

Read a story of your choice. Use the story grammar wheel to discuss the different parts of the story.


characters major/minor
setting
theme
problem
solution
episodes

(pattern for wheel)

(pattern for spinner)



Sunday Funnies

Cut out one of the comic strips from the Sunday or daily paper. Carefully cut out the captions (balloons) of the characters. Glue the comic strips (don't get it to wet with glue) to a piece of white paper. Make up your own captions for the characters.

Did You Know. . .

. . . that Tom Batiuk is a local cartoonist? Check your local newspapers for his work. (Crankshaft and Funky

Reading

Check It Out

Go to the public library. Pick up a book to read that is also on video. Read the book then watch the video. Now answer the questions.

What are three ways the book and video are alike?

1. ______________________________

2. ______________________________

3. ______________________________

What are three ways they are different?

1. ______________________________

2. ______________________________

3. ______________________________

Here are some titles Medina Public Library has. However some video rental stores have others.

The Case of Elevator Duck
Incredible Journey
Hector' Bs Bunyip
Ramona books
Soup for President
Sarah, Plain and Tall
Chocolate Fever
Mouse & the Motorcycle
Henry & Mudge books
Secret Garden
Stone Fox
4B Goes Wild

In Other Words

Silently read an article from a newspaper or magazine. Tell someone what the article said using your own words.

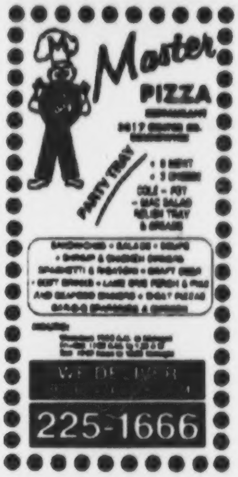
Did You Know . . .

. . . that some good kid's magazines are:

1. “Ranger Rick”?
2. “Sports Illustrated for Kids”?
3. “3 - 2 - 1 Contact”?
4. “Kid's Discover”?
5. “Cricket”?

Reading

Master Pizza



Master PIZZA

PARTY TRAY

WE DELIVER

225-1666

Read this ad or find another from the Medina Telephone Directory. Write a topic sentence about Master Pizza. Then write 6 sentences giving details about the topic sentence.

Let Your Fingers Do the Walking

Using the phone book look up the last name of Lincoln or Washington. Lincoln has _____ listings and Washington has _____ listings.

Using the yellow pages, look up Government offices City - Medina.

Five offices found are: ____________________

____

____

Look up Government offices-County. List 8 offices. ____________________

____

Look up Government offices - State. Five of the offices listed are: ____________________

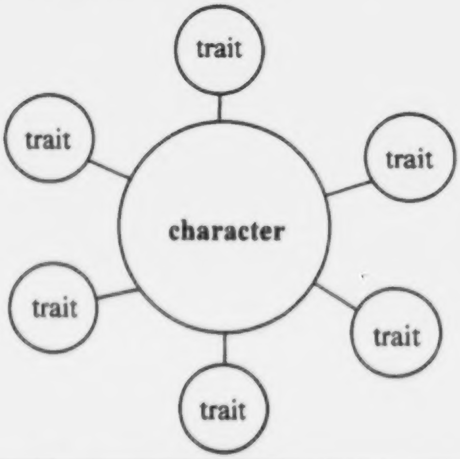
____

Reading

Use the newspaper. It's fun and informative. Cut out an interesting news story and cut the paragraphs apart. Ask your child to read the paragraphs and arrange them in logical order.

Character Traits

Read a story of your choice. Create a character-think-link for the characters in the story. Choose specific traits that describe the character. Then discuss why that character felt and acted that way. (This will give you a good understanding of each character in the story.



Did You Know. . .

. . . that there are many things you can find in the phone book? See if you can find these:

- First Aid Tips
- City Maps
- Zip Codes
- Historical Facts
- Hot Lines
- Human Services Listings

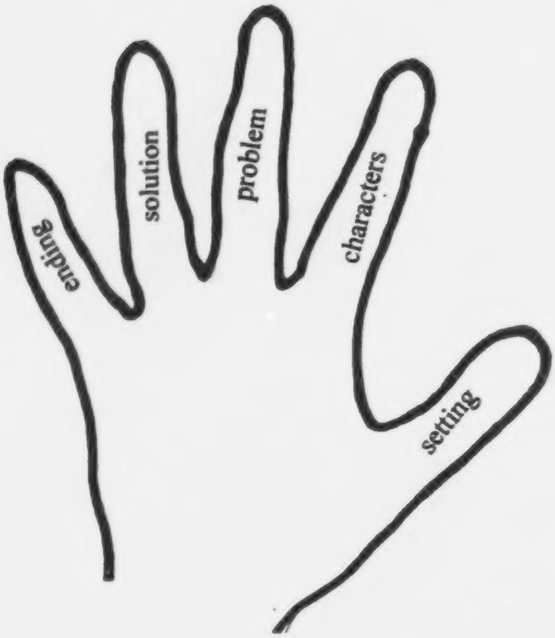
BEST COPY AVAILABLE

Reading

Give It a Hand

Begin this activity with a discussion about your child's favorite fairy tales. Together retell one of the stories. If either of you are unclear about any part of the tale, get a copy of it and read it aloud. Take a plain piece of paper and trace the outline of your hand. (Let your child do the tracing). Outside the thumb, write the word "setting". Label each of the other fingers "characters," "problem," "solution," and "ending". Record on the fingers the information that fits each "finger" for your child's favorite fairy tale. Repeat for other stories you read together. Save all "hands" and make a booklet.

Extension: Complete "hands" for nonfiction writings also. A good example would be to use articles from your local newspaper that interest your child.



Sports Resorts

Materials: sports section of a newspaper

Ask your child to pick out an article that might be of interest. It should be more than 2 paragraphs long. After reading it silently, ask and discuss with your child the main idea of the article, then discuss what ideas support the main idea.

★ The sports articles should not be too long or interest in reading might be lost.

★ Also the Mini-Page in most newspapers is perfect reading material for this activity.

★ Having a discussion is so important. It brings together your thoughts and opinions. It also brings about a higher level of thinking and oral expression.

Did You Know. . .

. . . that many fairy tales have several versions because they have been told and retold many times in many places? See how many versions of Cinderella and The Three Little Pigs you can find.

Reading

Nonfiction Reporter

Check out a science magazine for children out of the school or public library. Allow your child to select a favorite article to read silently. Read the article silently yourself to become familiar with it's content. Ask your child to retell the contents of the article in his or her own words. Fill in any key concepts you feel were left out by your child.

Extension: Subscribe to a child's science magazine (see the bibliography at the end of this handbook for ideas). Repeat this oral retelling often. Record retelling data in either list or paragraph form (can be used as often as possible with fictional pieces).

Dear Mr. President

Write a letter to the President of the United States. Tell him what you think is the biggest problem facing our country today.

President ________________
The White House
1600 Pennsylvania Ave.
Washington, D.C. 20500

Dear Mr. Henshaw

Write a letter to the author of a book you enjoyed reading. Tell the author why you enjoyed the book.

- Author's Name
- Name of Publishing Company
- Address of Publishing Company (information found on title page).

The Reading Father

by Jill Edwards Steely

When I was a child,
My favorite time of every day
Came just before my bedtime
When I found a favorite storybook
And climbed on Daddy's lap.
His whiskers brushed my hair
As I leaned back against his chest,
His strong arms reach 'round me
To open our passport to adventure.
I could feel his deep voice rumble
Against my back as he began to lead us
On our evening journey.
Oft' we'd tramp the Hundred Acre Wood
Or go where the Wild Things were.
We steamed down the Yangtze River;
Stood on the banks of
The great, grey-green greasy Limpopo River.
We joined Fern to watch her barnyard friends.
Dr. Doolittle taught us to talk to the animals.
We cried together when our sled dog died
Just before crossing the finish line.
But no matter how far we had roamed,
We always returned safely in time for bed.

And now I prepare for yet another journey
As my curly-haired toddler climbs on my lap.

1. What words and phrases are used to describe Daddy? ______________________________
2. Who is "I" in the poem? ______________
3. The father taught the child to do this when the child grew up: ______________________

Did You Know. . .

. . . that the book Dear Mr. Henshaw, by Beverly Clearly, is a book about a boy who really does write to an author?

Reading

Five Subject Area's Activities

Children are natural poets. The best way for them to get into a poem is to read it aloud. You can read together or to each other. Choose poems that the whole family will enjoy. Children enjoy poetry that brings clear images to mind and expresses strong feelings.

Ask your child to tell you the meaning of the poem. Ask why you would read more poetry by the artist? Why would you not read more of his works?

A browse through the library will uncover many poems bound to appeal to youngsters. Suggested poets are Lilian Moore, John Ciardi, Eve Merriam, and David McCord.

The Million Dollar Card

Given a nonfiction or fiction text to read silently and orally, your child will demonstrate an understanding of language and elements of nonfiction by responding to items.

Talk about major ideas and supporting ideas. Analyze the text.

Visit your local library and apply for the "million dollar card," the local library lending card. Visit the library weekly and borrow books. Read them for one half hour nightly. In a journal, as chapters are read, list the major and minor characters. Define the roles of the characters. Describe the setting(s) of the story. Retell each chapter on a separate sheet in the journal. After reading the book, compare it to the author's earlier works.

Scavenger Hunt

Materials: Newspaper, scissors, glue, paper,

Using a newspaper, find the following items, cut them out, and glue them onto a piece of paper.

1. The price of something to eat
2. An address
3. The number that gives the size of something
4. The score of a game
5. A number written in word form
6. A temperature
7. A number in a recipe
8. A phone number
9. The date the paper was published
10. A number that shoes distance

Did You Know. . .

. . . that Arnold Adoff is a poet who lives in Yellow Springs, Ohio with his wife Virginia Hamilton who is also an author?

Don't Forget: You can use the Clevenet System in the library to request books from other libraries without talking to anyone. All you need to do is type the requested information into the computer.

MATH

Math Goals

STRAND III - NUMBERS AND NUMBER RELATIONS

Know the basic addition, subtraction, multiplication, and divison facts and be able to tell why we use them.

STRAND I - PATTERNS, RELATIONS, FUNCTIONS

Classify objects by size, shape,and color.

Use patterns to make predictions.

STRAND II - PROBLEM SOLVING STRATEGIES

Given a real-life problem, decide whether to add (+) or subtract (-).

Identify needed infomation to solve a problem.

Step-by -step tell why a solution to a problem is correct.

STRAND III - NUMBERS AND NUMBER RELATIONS

Compare numbers for greater than (>), less than (<), and equal to (=). Order numbers from least to greatest and/or greatest to least.

Demonstrate adding and subtracting of whole numbers with a fraction by drawing pictures.

Put fractions in order using greater than (>), less than (<), and equal to (=), greater than or equal to (≥), less than or equal to (≤) .

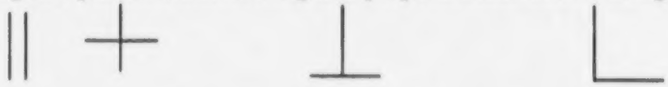
Understand place value using numbers and words.

Add and subtract decimals.

STRAND IV - GEOMETRY

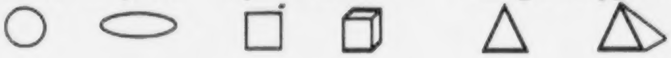
Understand that lines, angles, simple closed curves, and shapes can be congruent and symmetrical and that they have an inside and outside.

Recognize parallel, intersecting and perpendicular lines. Recognize right angles.



Show the likes and differences of two dimensional and three dimensional shapes and objects.

Ex. circle vs. sphere   square vs. box   triangle vs. pyramid



STRAND V - ALGEBRA

Follow the key sequence on a calculator and predict the answer.

37 + 21 = 58 $\boxed{3}\ \boxed{7}\ \boxed{+}\ \boxed{2}\ \boxed{1}\ \boxed{=}$ 58

Understand that a letter can stand for a number value in a math problem.

$a + 6 = 9$ ($a = 3$) $b + 5 = 9$ ($b = 4$)

Understand odd and even numbers.

STRAND VI - MEASUREMENT

Using measuring tools (ruler, yard stick, etc.) determine centimeter and inches.

Use a number line to recognize whole numbers and fractions.

Count money and make change.

Understand that different units (standard and metric) of measure are used for determining length, capacity, and weight.

Find the perimeter and area and understand the difference.

Use mental math, paper and pencil, and other objects to find elapsed time.

STRAND VII - ESTIMATION AND MENTAL COMPUTATION

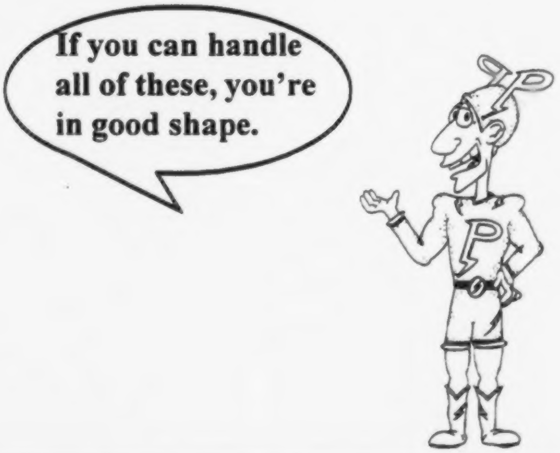
Use front-end digits to estimate in addition and subtraction.

Round numbers to the nearest ten and estimate answers and tell whether the estimates are greater than or less than the exact amount.

STRAND VIII - DATA ANALYSIS AND PROBABILITY

Make, use, and interpret graphs.

Use probability to decide if events will happen, might happen, or can not happen.

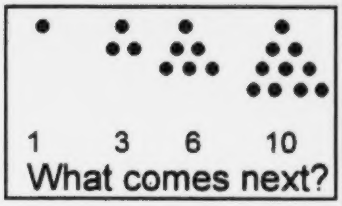

If you can handle all of these, you're in good shape.

Math Strands

***These objectives will be on every 4th grade proficiency test.**

Patterns - Relations - Functions

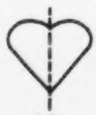
1. Sort or identify objects.
2. * Use patterns to make generalizations and predictions.



Problem Solving Strategies

3. * Use mathematical terms and symbols.
4. Identify needed information to solve a problem.
5. Explain or illustrate a solution.

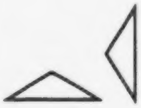
Number and Number Relationships


Line of Symmetry

6. Add, subtract, order, and compare numbers.
7. * Illustrate, identify, add, and subtract fractions.
8. * Add, subtract, multiply, and divide whole numbers and explain thinking.
9. * Put fractions in order by size.
10. * Use place value ideas in words and symbols.
11. Add and subtract decimals.

Place Value
2 hundreds, 3 tens, and 7 ones
OR
two hundred thirty-seven
OR
237

Geometry and Spatial Sense


Congruent Triangles
(same size, same shape)

12. Apply congruence, symmetry, paths, simple closed curves, and the ideas of interior and exterior.
13. * Recognizes types of lines and right angles.
14. * Discuss angles, lines, shape of squares, rectangles, circles, triangles, etc.

Algebra

15. Symbolize a keying sequence on a calculator.
16. * Use variables (letters or boxes to stand for the unknown) to model problems.

Measurement

17. Measure using metric and standard systems.
18. * Count and use money.
19. Illustrate the approximate size of units of length, capacity, and weight.
20. Find perimeters and areas.
21. * Find the amount of time that has passed.
22. Use front-end digits to estimate.
23. * Use estimation and mental arithmetic.

Data Analysis and Probabilty

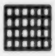
24. * Make or use a table to record and sort information.
25. Find simple experimental probabilities (See "Coin Flip" activity).

Math Glossary Terms

add - to combine two or more numbers to find a sum. (2 + 6 = 8)

angles - the space between two lines or two surfaces that meet.

area - the amount of surface within a given boundary of a plane figure.



capacity - the amount of liquid a container can hold.

centimeter - a unit of length equal to 1/100 of a meter.

classify - to group in classes.

cone - a solid, pointed object that has a flat round base.

congruent - coinciding exactly when superimposed (congruent triangles).

difference - The number found by subtracting one number from another. In 95 - 68 = 27, the difference is 27.

divide - to separate into equal parts. (8 ÷ 2 = 4)

estimate - to calculate the approximate amount.

equal to - being the same or identical to in value (3 = 3); mathematical equivalence.

factor - A number to be multiplied. A number that divides evenly into a given second number is a factor of that number.

foot - a unit of length in the U.S. Customary System equal to 12 inches or 1/3 yard (1').

fraction - a number that is one or more of the equal parts of a whole. A fraction shows the division of one number by a second number.

front end digits - the digit in number that has the greatest place value.

greater than - consisting of a larger number (9 > 5). This is the greater than sign >.

inch - a unit of length in the U.S. Customary System equal to 1/12 of a foot.

intersecting - the place or point where two or more things cross or pass through.

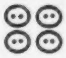
length - the longest or the longer side of an object.

less than - consisting of a smaller number (5 < 9). This is the less than sign <.

meter - the basic unit of length in the metric system.

metric units - a system of measurement which counts by ten. It's basic unit of length is the kilometer.

multiply - to increase the amount, by groups of an equal number.



4 x 2 = 8

non-standard - not standard

parallel - to be like or equal.

perimeter - the boundary of a figure or an area; the perimeter of a square is equal to four times the length of one side.

perpendicular - exactly vertical; being at right angles to a line or surface.

probability - A number from 0 to 1 that tells how likely it is that a given outcome will occur. The closer to 1, the more likely the outcome is to occur. The closer to 0, the less likely it is to occur.

product - The number found by multiplying numbers. In 27 x 3 = 91, the product is 81.

quotient - The answer after dividing one number by another.

rectangle - a parallelogram with a right angle. ▭

rounded - to express as a round number.

square - a rectangle having four equal sides. □

standard unit - the notation for writing numbers using the digits 0-9.

subtract - to take away from; deduct. (8 - 2 = 6)

sum - the number found by adding numbers. In 8 + 4 = 12, the sum is 12.

symmetry - a balanced arrangement of parts on either side of a line or around a center.

two dimensional - having two dimensions (length and height).

three dimensional - having three dimensions (length, height, and width).

triangle - the plane figure formed by connecting three points not in a straight line by straight line segment; a three-sided polygon.

weight - how heavy a thing is.

whole numbers - a number that is zero or any of the natural numbers.

yard - the fundamental unit of length in the U.S. Customary System equal to 3 feet (1 yd).

STEPS TO USE IN PROBLEM SOLVING

This is made up of a Five Step Plan. The five steps are: understand, plan, try, check, and extend.

1. **Understand**- you have to read the problem and decide what you know and don't know about the problem.

2. **Plan**- Decide what you can do to solve the problem. Are you going to add or subtract, multiply or divide? Use graphs, draw pictures, make charts, or use manipulatives to find the answer.

3. **Try**- Try your plan and see if it works.

4. **Check** - Does your answer make sense?

5. **Extend** - Think about what you have learned from the problem.

Mathematics

Baseball Math

Materials: baseball cards, newspaper sports section. Using percents or averages of various teams and players, your child can subtract or add to find differences and sums.

Children seem to read the sports section of the newspapers more than anything else. The box scores of standings can be used for a math activity.

Ask your child a variety of questions, such as:

- Who had the highest average on the team?
- Who improved the most?
- What player had the lowest percentage?

Also - baseball cards can be used in the same way.

Did You Know. . .

. . . that the Cinncinati Red Stockings now the Reds became the nation's first professional baseball team in 1869?

. . . that Frank Robinson was the first Afro-American manager in the major leagues for the Cleveland Indians?

. . . that Larry Doby was the first Afro-American baseball player for the American League for the Cleveland Indians?

To Market . . . To Market . . .

Materials: calculator, newspaper. Your child will use a calculator to help add costs of food lists.

As you make out your shopping list, have your child use a calculator to help you figure out the cost of your weekly bill. Predict before hand what the bill might be.

HINT: When you are buying meat, vegetables, or fruit and you are buying by the pound (lb.), your child needs to multiply the cost by how many pounds you are buying. For example:

$1.39 per pound
x 5 lbs.-how much you are buying

Follow Buckeye Guy's lead to find more information on this topic.

Have you seen the new Jacobs Field or watched our minor league team the Akron-Canton Indians?

Mathematics

$100 Words

How many words can you create that are $100.00? Each letter has a specific value (A = $1, B = $2, C = $3, etc.) See how many words you can create. Check your work with a calculator.

How many $75.00, $50.00, etc., words can you create?

Activity Sheet p.52

Did You Know . . .

. . . that there are 24 time zones in the world?

Find a map showing time zones and calculate the time in Los Angeles, California, and Hong Kong, China.

It's About Time

Elapsed time is the time that passes from a given time to another time. Create your own short story problems to practice elapsed time on the clock.

Sample: Joe started his homework at 3:30 p.m. He finished at 4:15 p.m. How much time did he spend on his homework?

Sample: Sally left the house at 2:00 p.m. She came home in 2 hours. What time did she return home?

Activity Sheet p. 53

The Best Buy

Use your local newspaper ads to practice counting money and making change.

- $ Find an ad with various prices. Use the paper money manipulatives to show the exact amount of various amounts.
- $ Use the ad to make change. Start with a certain dollar amount. Buy an item/items from the ad. Make the correct change.

Money manipulatives on pg. 54 & 55

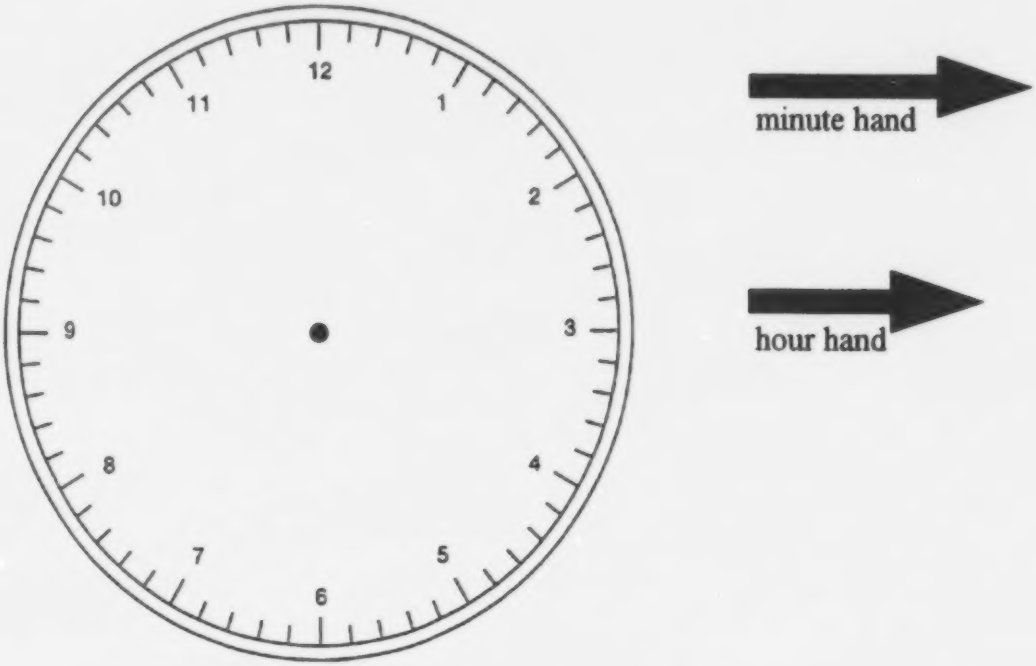
Follow Buckeye Guy's lead to find more information on this topic

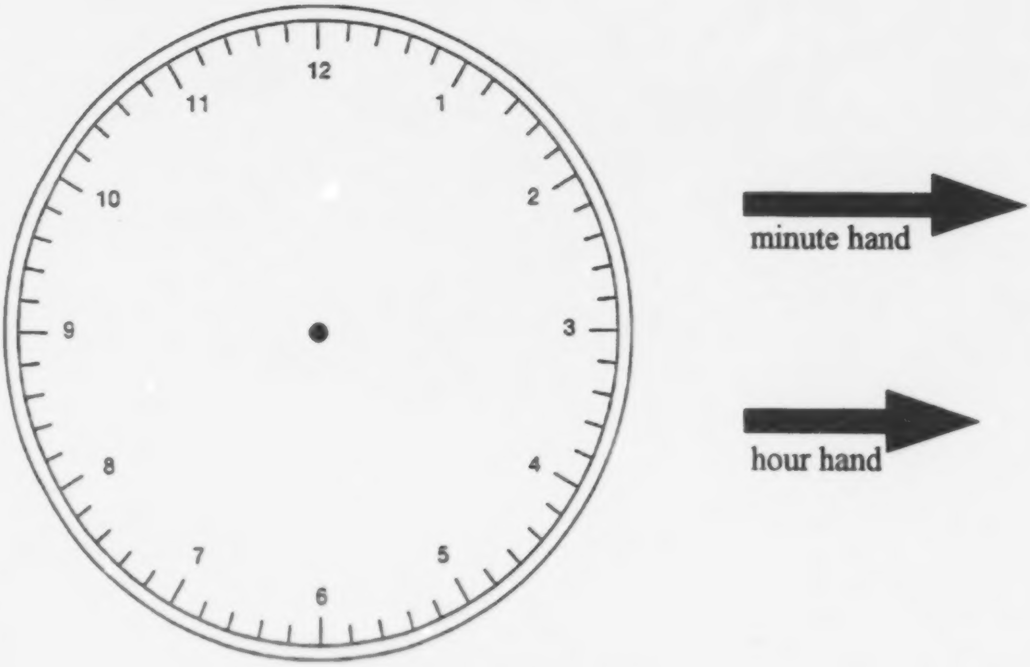
Look around your house and yard for items shaped like a square, circle, triangle, sphere, cone, cylinder,

$100.00 WORDS

A	**B**	**C**	**D**	**E**	**F**	**G**
$1	$2	$3	$4	$5	$6	$7
H	**I**	**J**	**K**	**L**	**M**	**N**
$8	$9	$10	$11	$12	$13	$14
O	**P**	**Q**	**R**	**S**	**T**	**U**
$15	$16	$17	$18	$19	$20	$21
V	**W**	**X**	**Y**	**Z**		
$22	$23	$24	$25	$26		

ELAPSED TIME


12
1
2
3
4
5
6
7
8
9
10
11
minute hand
hour hand


12
1
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minute hand
hour hand

5
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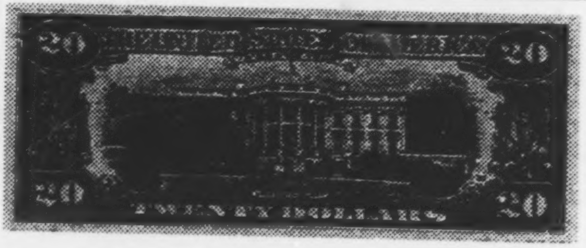
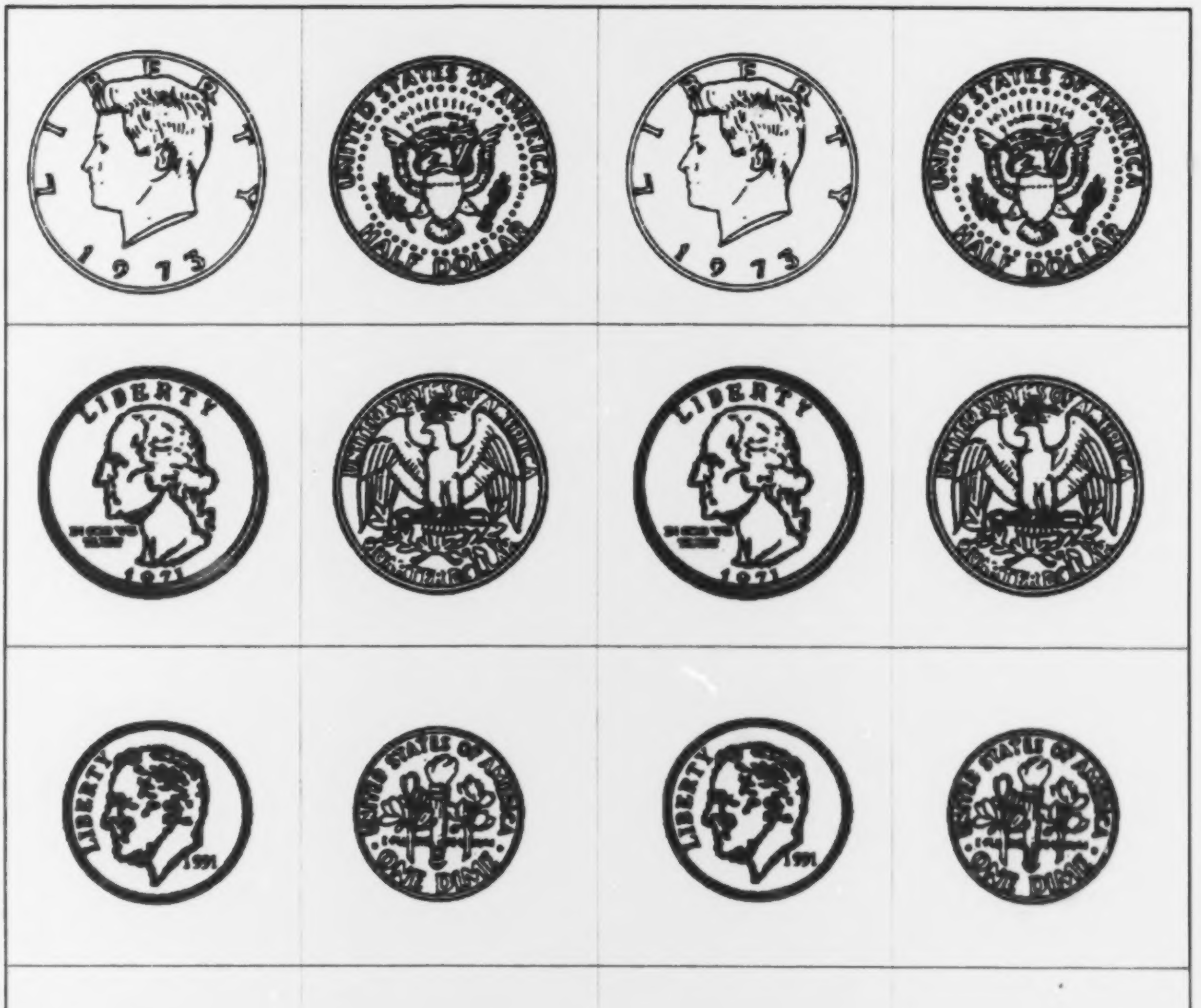
FIVE

5
5
FIVE
FIVE



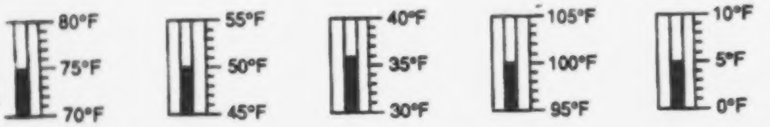
BEST COPY AVAILABLE

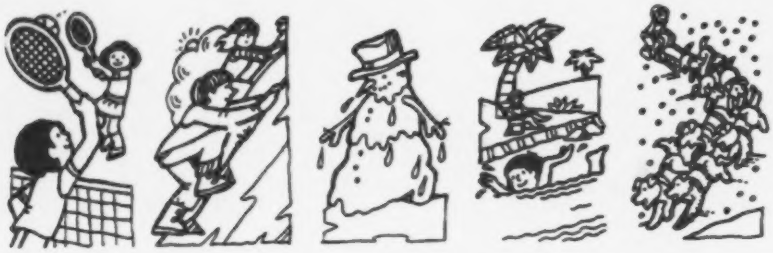

LIBERTY
1973
UNITED STATES OF AMERICA
HALF DOLLAR
LIBERTY
1973
UNITED STATES OF AMERICA
HALF DOLLAR
LIBERTY
1971
LIBERTY
1971
LIBERTY
1991
UNITED STATES OF AMERICA
ONE DIME
LIBERTY
1991
UNITED STATES OF AMERICA
ONE DIME
IN GOD WE TRUST
FIVE CENTS
UNITED STATES OF AMERICA
IN GOD WE TRUST
FIVE CENTS
UNITED STATES OF AMERICA
IN GOD WE TRUST
LIBERTY
UNITED STATES OF AMERICA
ONE CENT
IN GOD WE TRUST
LIBERTY
UNITED STATES OF AMERICA
ONE CENT

Mathematics

Exploring Math at Home

In the United States, we use degrees in Fahrenheit to measure temperature. Water freezes at 32°F and boils at 212°F. It is important for children to develop an idea of what the outside temperature means. Have your child write the temperatures beneath the appropriate picture below.





1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Answers: 1. 75ºF 2. 50ºF 3. 36ºF 4. 100ºF 5. 5ºF

Did You Know . . .

. . . that Andres Celsius invented the celsius thermometer in the 1700's?

. . . that water freezes at 0°C and boils at 100°C when using the metric system to measure temperature.

Bundle Up or Not?

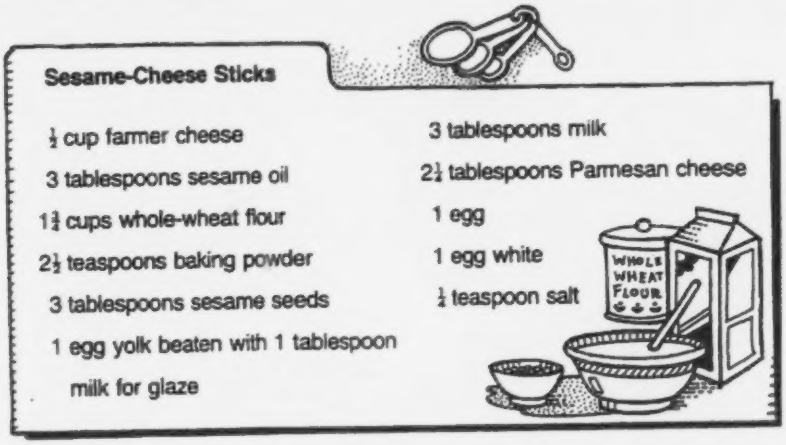
Read the weather forecast in the newspaper each morning for a week or watch the morning news to learn the daily temperature. Then decide on the appropriate clothing for the day. Keep track of the daily temperature in a table or chart, and discuss whether the days seem to be getting warmer or cooler.

Follow Buckeye Guy's lead to find more information on this topic.

Measure the perimeter of one of the rooms in your house. If you want a real challenge, go outside and measure the perimeter of your whole house!

More Math at Home

One everyday use of fractions and mixed numbers is in recipes. Read the ingredients for this recipe with your child. Have him or her answer the questions that follow. You may check your child's answers by helping him or her measure the ingredients.



Sesame-Cheese Sticks

½ cup farmer cheese
3 tablespoons sesame oil
1¾ cups whole-wheat flour
2½ teaspoons baking powder
3 tablespoons sesame seeds
1 egg yolk beaten with 1 tablespoon milk for glaze
3 tablespoons milk
2¼ tablespoons Parmesan cheese
1 egg
1 egg white
¼ teaspoon salt

Does the recipe call for more salt than baking powder? _____

Is the amount of flour greater than 2 cups? _____

Does the recipe call for more seasame oil than Parmasean cheese? ______

If you double this recipe, will you use more than ½ teaspoon of salt? _____

From one of your cookbooks, choose a recipe that calls for ingredients that are measured in fractions and mixed numbers. While preparing the dish with your child, ask him or her to compare different units. Ask, for example, whether ½ pint is greater than ½ cup.

Volume

Select a container and predict how many cups of uncooked rice it will hold. Measure the rice and fill the container. Was your prediction correct? Select a different container. Predict whether it will hold more or less rice than the first container. Measure. Continue this process using a different container each time.

EXTRA: What happens to the volume of a cup of rice after it has been cooked?

Even More Math at Home

We often have to multiply amounts of money when planning a budget. If we spend $48 a month on the phone bill, we multiply $48 x 12 months to find how much we spend in a year. Have your child multiply to find how much is spent per month for weekly bills (multiply by 4) or per year for monthly bills (multiply by 12) on these items.

1. Postage: $7.50 per week ________
2. Phone: $13.00 per week ________
3. Heat: $45.00 per month ________
4. Light: $19.00 per month ________
5. Gas: $14.00 per week ________
6. Groceries: $96.00 per week ________
7. Lunches: $14.00 per week ________
8. Newspapers: $20:00 per month ________

You may want to help your child use this month's phone or electricity bill to estimate the cost of that service over a year's time. He or she can start by rounding the total to the nearest dollar, and then multiply the result by 12.

* * *

Addition/Multiplication War

Materials: purchase 2 decks of playing cards. (Remove all face cards. Ace is 1.)

Put the cards (2 decks) together. Divide the cards equally between 2 players.

At the same time, both players lay down their top card from their pile. Whoever answers first, gets the cards. If it is a tie, you have a "war". The first person to get all the cards wins **OR** the person with the most cards when you stop playing wins.

Did You Know . . .

. . . that if you kept counting at the rate of one number per second, it would take you a little under 12 days to count to 1,000,000? How many years to do this counting up to 1,000,000,000?

Mathematics

Dinnertime Grouping

When we serve a meal, we divide the food among the eaters. You can think of dividing as sharing or grouping. If you divide 18 by 9, you can say you are putting 18 objects into 9 groups. Have your child solve these grouping and sharing problems.

1. We bought 10 small bottles of apple juice. There are 5 of us. How can we share?

   ____

2. There are 20 chairs. There are 4 tables. How can we group the chairs?

   ____

3. We have 4 muffins. There are 2 of us. How can we share?

   ____

4. There are 8 tables. There are 2 rooms. How do we group the tables?

   ____

5. There are 18 roses. There are 3 vases. How can we group the flowers?

   ____

6. There are 4 bowls of fruit. There are 4 tables. How can we group the bowls of fruit?

   ____

You may want to use sharing and grouping problems like those above to help your child plan a party or family meal. Ask your child to use division to calculate the amount of food and dinnerware needed for the number of people attending. Have him or her consider the best ways to group tables, chairs, and furniture for the event.

Answers: 1. 2 bottles each 2. 5 chairs at each table 3. 2 muffins each
4. 4 tables in each room 5. 6 flowers in each vase 6. 1 bowl on each table

Follow Buckeye Guy's lead to find more information on this topic.

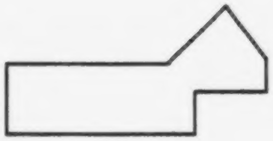
The next time you visit your favorite restaurant, can you find tables with equal groups of people? What is the total number of diners at those tables?

Mathematics

Home Polygons

When we wallpaper a room or lay a rug, we often have to use pieces that are irregularly-shaped polygons to fit into areas that are themselves large irregularly-shaped polygons. Have your child decide what kind of polygons he or she would use to cover these areas.

1.



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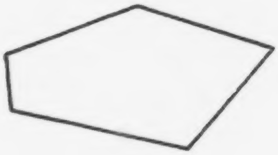
2.



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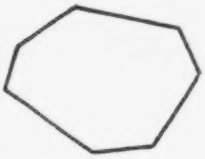
3.



____

With your child, you may want to identify various polygonal shapes in your home. Have your child imagine that he or she must cut wallpaper to fit a particular room. Ask him or her to identify what types of polygons the wallpaper would form when it was pasted down. Then ask what shape or shapes of carpet would be necessary to fit the floor. Would regular or irregular polygons be needed?

Answers: 1. 2 rectangles and a triangle 2. 1 quadrilateral and 1 triangle
3. Possible answers: 1 triangle and 2 quadrilaterals, or 3 triangles and 1 quadrilateral

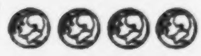
Follow Buckeye Guy's lead to find more information on this topic

As you travel through your community, become a "geometry detective". How many different shapes can you find as you observe the scenery?

Mathematics

Money Division

We use division whenever we share money evenly among several people—for example, when friends split the money they earned running a lemonade stand. Have your child determine how he or she and 3 friends could share the following sums evenly. How much would each child receive?

1.


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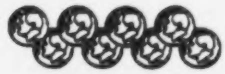
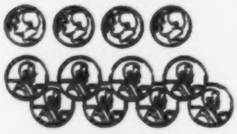
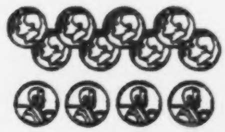
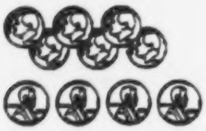


3.


4.


5.


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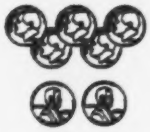


You may want to organize your own family recycling project and put your child in charge of dividing up the money from the newspapers, bottles, and cans. Or you might make a small family contribution to a worthy cause and have your child use division to calculate each family member's contribution.

Did You Know. . .

. . . that some U.S. Presidents can be found on our money? Who's on the money in your pocket, purse, or bank?

Coins

Penny - *Abraham Lincoln*
Nickel - *Thomas Jefferson*
Dime - *Franklin Roosevelt*
Quarter - *George Washington*
Half Dollar - *John Kennedy*
Silver Dollar - *Dwight D. Eisenhower*

Paper

One Dollar - *George Washington*
Five Dollar - *Abraham Lincoln*
Ten Dollar - *Alexander Hamilton*
Twenty Dollar - *Andrew Jackson*
Fifty Dollar - *Ulysses S. Grant*
Hundred Dollar - *Thomas Jefferson*

Follow Buckeye Guy's lead to find more information on this topic

The next time you go to a restaurant, ask the waitress if you can keep one menu at the table during your meal. After everyone has ordered, have your child locate the price of each meal on the menu. Round the price of each meal to the nearest 10¢ and mentally total the bill. When the bill arrives, compare the estimate to the actual bill. Allow your child to count out the money and pay the bill.

Mathematics

What's Cooking?

Give your child opportunities to measure a variety of items by helping out in the kitchen. Select any simple recipe and have your child follow directions and prepare the food.

What's For Lunch?

1. Ask your child to calculate the amount of money needed to be a "lunch buyer" for an entire week.
2. Have your child calculate by rounding to the nearest dollar the cost of lunch for a week.
3. Have your child calculate by rounding to the nearest dime the cost of lunch for a week.
4. Repeat steps 1-3 for the cost of your whole family to eat lunch at school for a week.

Extensions:
1. Repeat steps 2-4 for a 4 day week, 3 day week, etc.
2. Repeat step 1 but figure the cost of lunch for one child for a whole month, and an entire year.

Measurement

Materials: 1 tablespoon, 1 cup measuring cup, 1 gallon container

Predict how many tablespoons it will take to fill 1 cup. Predict how many cups it will take to fill a gallon. Using water, measure to see if your predictions were correct. Extend this activity by adding pint and quart containers.

Did You Know . . .

. . . the different equivalent measures?

2 cups = 1 pint
2 pints = quart
4 quarts = 1 gallon

How about meters to feet? inches to yard? minutes to hours? feet to miles? teaspoons & tablespoons to cups? Which others are there?

Mathematics

Hey, Mr. Tally Man!

1. Take your child to a crowded place (a mall, center of town, high school sporting event, etc.)
2. Decide together what attribute about clothing you'd like to focus on. (hats, shoes with velcro, slip on shoes, jackets). At a glance, see who does or does not have the attribute.
3. Decide who will be the "Tally Man" and who will be "the look-out".
4. On a plain piece of paper, set up a T chart with your attribute.
5. Have your child predict the results of your survey before you actually start.
6. The "look out person" will begin to give information to the Tally Man by saying YES or NO (ex.: if 5 people pass, 3 with hats, 2 without, the information spoken could be said "yes, no, yes, yes, no").
7. Continue observing until you have counted at least to 100.
8. Observe your data.
9. Check your child's prediction with actual information.
10. Allow your child to convert your information to a percent or fraction out of 100.

Extension:

1. Observe different things on different days and use graph paper to compile a bar graph of your various studies. Decide what value each square on the paper should be (1 = 5, 1 = 1, 1 = 10, etc.)
2. Allow your child to write down the steps involved in this activity. Use three or more paragraphs beginning, middle, and end. Encourage him or her to share this project with his friends.

Did You Know . . .

. . . that bank tellers, who count out money for customers, got their name from the days of tallying? A "tallier" was the person who counted the tally sticks, and that changed over the years into teller.

Mathematics

What's Your Change?

Can you believe that there are 49 ways to make change for $.50? How many ways can your son or daughter determine? Below are two examples and a strategy to record the exchange.

$.25	$.10	$.05	$.01
1	1	2	5
0	4	2	0

Measurement

Materials: white paper, pencil, measuring utensil with standard and metric measure

Place your bare foot on a piece of paper and trace it. Place your hand on a piece of paper with your fingers and trace it. How long is your hand in inches? How long is your hand in centimeters. How wide is your hand in inches? How wide is your hand in centimeters? Measure the length and width of your traced foot both inches and centimeters.

Body Part Estimation

Materials: string, ruler or tape measure, paper

Create a chart listing various parts of your body (head, arm, neck, etc.) Estimate the distance around each of the parts of your body and list the estimations on the chart. Measure the distance around each part using a piece of string. Lay the string along side the ruler and measure. Record the actual measure on the chart. How close were your estimations?

Did You Know . . .

. . . that Columbus, Ohio was the first city to introduce the twenty-four-hour banking machine?

Mathematics

Multiplication Facts

Learning the multiplication facts requires a certain amount of time and repetition. This does not mean your child has to practice in the same way daily. Have your child make a game board like the one in the picture.

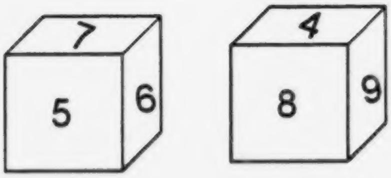
Write the numbers 4-9 on the two cubes or dice. You may wish to use erasable ink on the cube faces, or tape a piece of white paper on each face.

Each player will need 10 - 15 markers to cover the discovered answers.

Players take turns rolling the dice and multiplying the numbers. On a turn, a player may be able to cover more than one number. The winner is the first person to cover three squares in a row — diagonally, vertically, or horizontally.

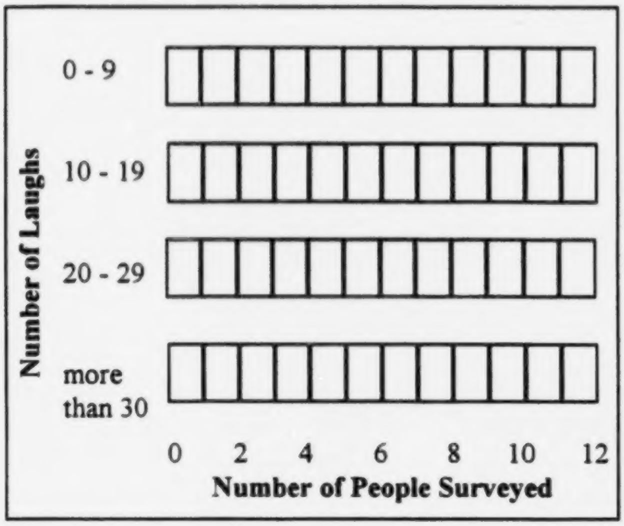
Vary the rules in the game. For example, allow only one player to occupy any given space.

32	72	35	30	42
48	36	63	54	81
64	54	56	49	35
81	45	28	40	42
30	81	35	48	32



Graphing

Take a survey of 12 people you know. Ask the people how many times they laugh in an average day. Graph the results ("Ha Ha Ha" counts as 3 laughs).



Mathematics

Fun Tales to Solve

Snow White left the woods to live with Prince Charming in his castle, but she did not forget the seven dwarfs. She built them a three story house next to the castle.

Snow White wanted to paint each story of the house a different color. She wanted a red story, a yellow story, and a blue story.

There are several ways she can paint the house. Can you find them all?

Cinderella was very happy living with the prince. She even forgave her two stepsisters and her stepmother and let them live in the castle. But the prince insisted that they do housework.

Cinderella's stepmother had to polish all the silver in the castle. Her two stepsisters had to wash the laundry.

Now use your creative math mind to formulate a few afterward problems by developing a heavy-duty laundry schedule for the stepsisters.

Do you know what happened after the three little pigs got rid of the wolf? The pigs decided to live together in the brick house. But the house was too small for all three pigs and they needed bricks to make it bigger. So they planned a bring-a-brick party.

- Each pig invited three friends to the party.
- Each friend invited three cousins.
- Each cousin invited two aunts.
- Each aunt invited one uncle.
- Each guest brought two bricks to the party.

How many bricks did the pigs collect on party day?

After the prince woke Sleeping beauty with a kiss, they fell in love and got married. Everyone knows that. But did you know that Sleeping Beauty could not sleep at all after the prince broke the spell?

In fact, she didn't fall asleep again for the next 518,400 seconds! How many days was Sleeping Beauty awake?

CITIZENSHIP

Citizenship Goals

STRAND I - AMERICAN HERITAGE

- Place events in order on a timeline.
- Locate and use books and resources to find out about a topic in history.
- Relate major events and individuals in state history to time periods in the history of the nation and the world.

STRAND II - PEOPLE IN SOCIETIES

- Identify the different races, ethnic groups, and religions that live or have lived in Ohio.
- Explain how the people of different races, ethnic groups, and religions have helped in the development of Ohio.
- Tell about customs, traditions, and needs of the races, religions, and ethnic groups of Ohio.

STRAND III - WORLD INTERACTIONS

- Use a number/letter grid system or map key, to locate places on a map.
- Use maps and diagrams to recognize continents by their shapes and major physical features. Use maps and diagrams to recognize the characteristics of major land forms and bodies of water.
- Find Ohio in relation to other states and regions of the U.S. and to major physical features of North America.

STRAND IV - DECISION MAKING AND RESOUCES

- Identify factors of production such as land, labor, capitol, and entrepreneurship.
- List what is needed to produce a product or service.
- Know the differences between production and consumption.

STRAND V - DEMOCRATIC PROCESS

- Identify the jobs of the legislative, executive, and judicial branches of government.
- Tell the functions of the departments of state government in the U.S. (such as road construction).
- Tell the functions of local government (ex. protect health and safety of citizens - local police department).

STRAND VI - CITIZENSHIP RIGHTS AND RESPONSIBILITIES

- Tell the difference between fact and opinion presented through local media (newspapers, T.V., radio billboards, fliers, etc.).
- Identify our personal responsiblity with working in groups through the community.
- Identify the elements of rules relating to fair play.

Citizenship Glossary Terms

capital - money or property that is invested to produce more money.

consumption - the act of consuming, using up something.

customs - something people do that is widely accepted.

entreprenuership - taking a risk and organizing a business or industrial undertaking.

ethnic - of a group within a larger society who continue to speak a foreign language and share a way of life.

executive - the branch of government responsible for managing the affairs of the government.

function - the normal or proper activity of a person or thing, purpose

judicial - the branch of government that interprets laws and adminsters justice.

labor - the group of people who work for a living; workers.

land - the part of the earth's surface not covered by water.

legislative - the branch of the goverment having to do with making or passing laws.

media - newspapers, television, and other means of public communication.

physical features - the natural characteristics of the earth's surface.

product - something that is made or created

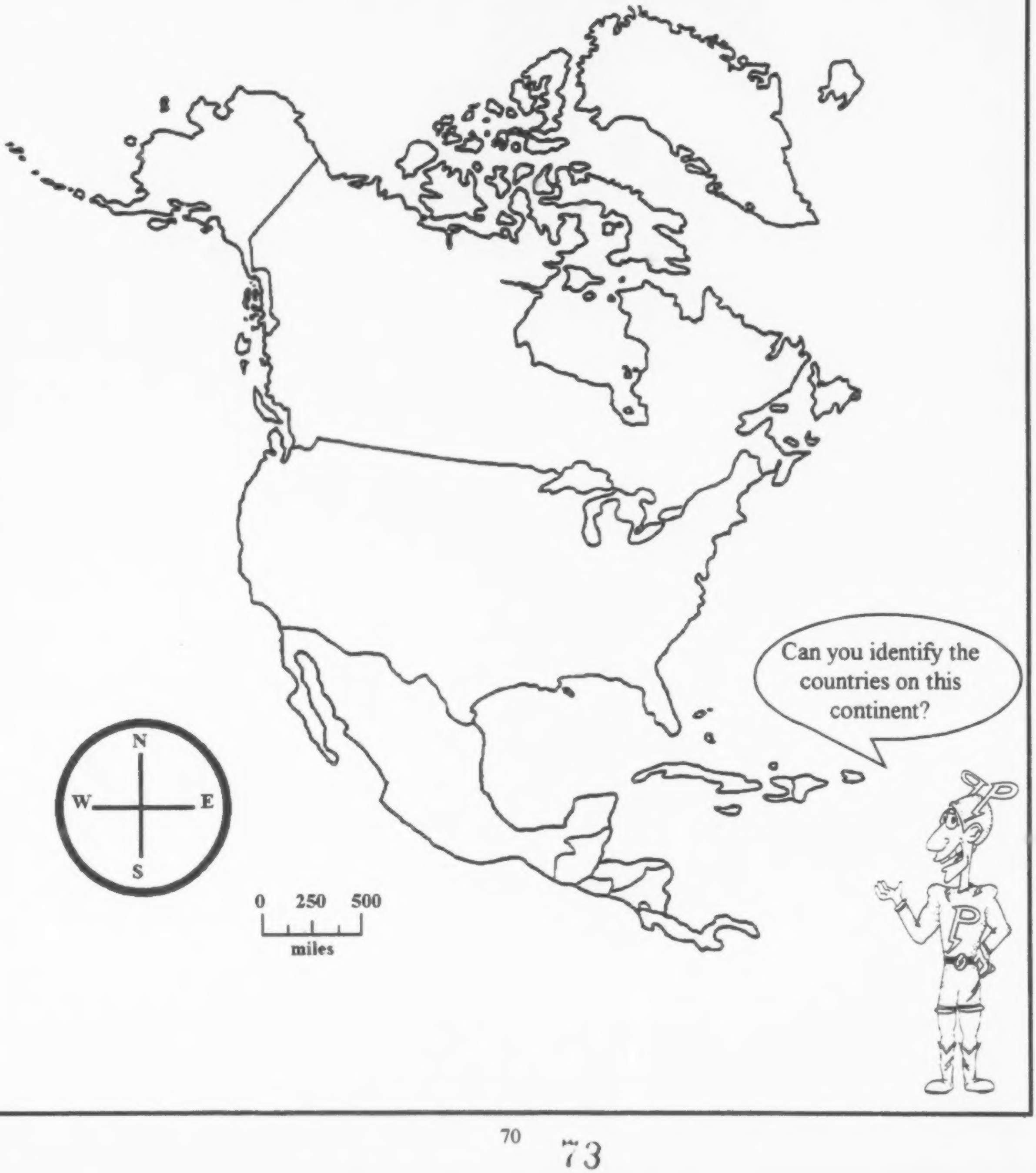
production - the act or process of making or producing something.

service - a means of supplying the needs of the public.

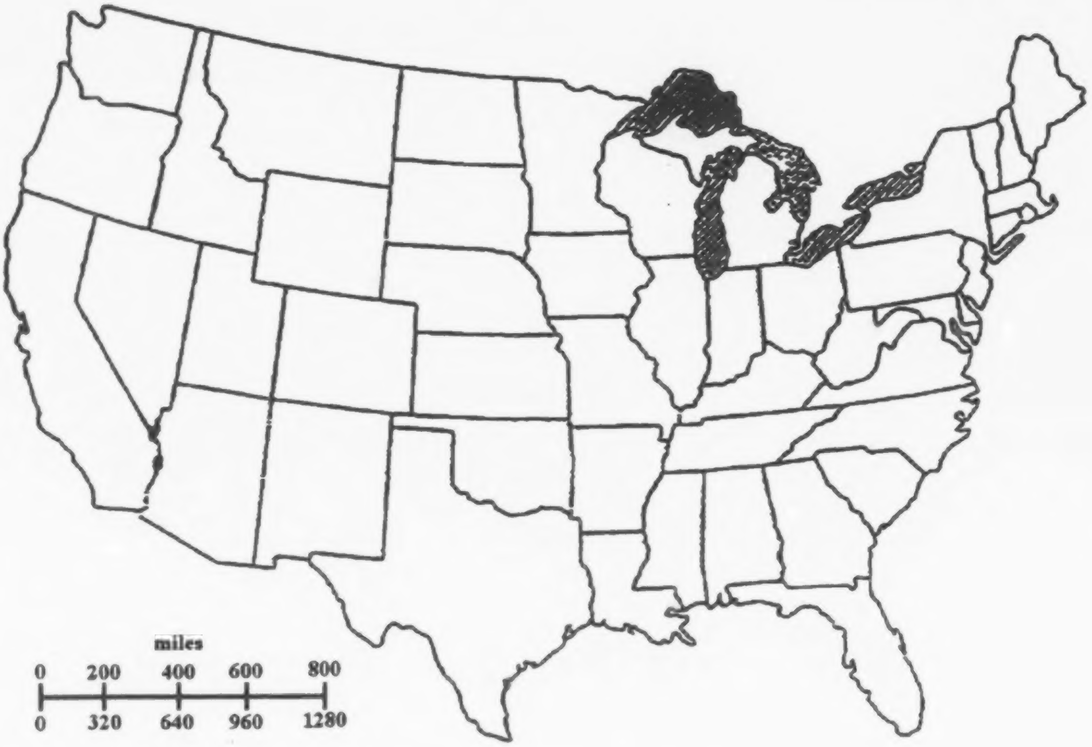
time line - a line that has marks noting certain dates in history.

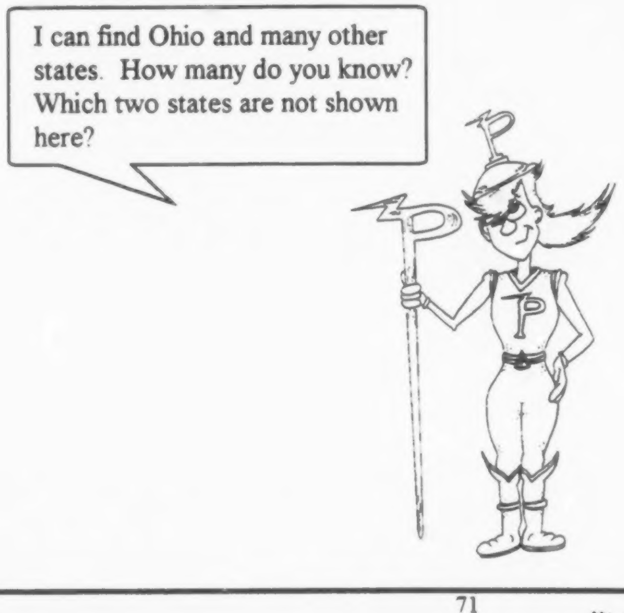
traditions - the practice of passing down ideas, customs, and beliefs from one generation to the next, especially by telling about them.

The Continent of
NORTH AMERICA


N
W
E
S
0 250 500
miles
Can you identify the countries on this continent?

THE CONTINENTAL UNITED STATES OF AMERICA


miles
0
200
400
600
800
0
320
640
960
1280


I can find Ohio and many other states. How many do you know? Which two states are not shown here?

The State of Ohio

Ohio

"The Buckeye State"

Basic Facts

Capital: *Columbus*
Statehood: *March 1, 1803*
Admittance: *17th State*
Motto: *"With God, All Things Are Possible"*
Song: *"Beautiful Ohio"*
Bird: *Cardinal*
Flower: *Scarlet Carnation*
Tree: *Buckeye*
Abbreviation: *OH*

Area: *41,330 square miles (107,044 sq. km)*
Elevation: (above sea level)
Highest: 1,550 ft. (472 m) - Campbell Hill
Lowest: 433 ft. (132 m) - Hamilton County
Average Temperatures:
July: 73°F (23°C)
January: 28°F (-2°C)
Average Yearly Precipitation: *38 in. (97 cm)*
Reptile: *Blackracer Snake*

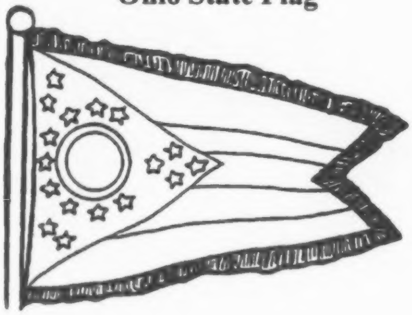
Population

How Many: *10,887,325 (1990 Census)*
Where They Live: *73% urban, 27% rural*
Largest Cities: *Cleveland, Columbus, Cincinnati*

State Government

Governor: *4-year term*
Senators (33): *4-year term*
Representatives (99): *2-year term*
Counties: *88*

Ohio State Flag



Federal Government

Senators (2): *6-year term*
Representatives (19): *2-year term*
Electoral Votes: *21*

Economy

Agriculture: *corn, soybeans, milk, hogs, beef cattle, hay*
Fishing: *yellow perch, walleye*
Manufacturing: *transportation equipment, metal products, food products, chemicals*
Mining: *coal, natural gas, petroleum*

Interesting Facts

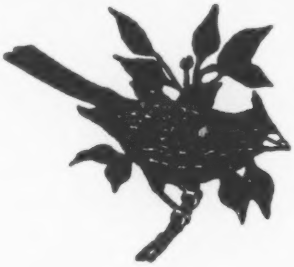
- Eight United States Presidents have come from Ohio: Grant, Garfield, Hayes, McKinley, Harding, Taft, William Harrison and Benjamin Harrison
- The first electric traffic light signals were invented by Garret Morgan in Cleveland.

Interesting Ohio

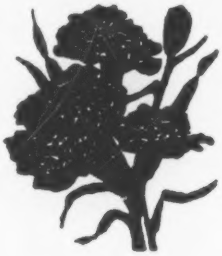
- Neil Armstrong was the first person to set foot on the moon during the Apollo 11 lunar landing mission. He was born in Wapakoneta.

Ohio's Symbols

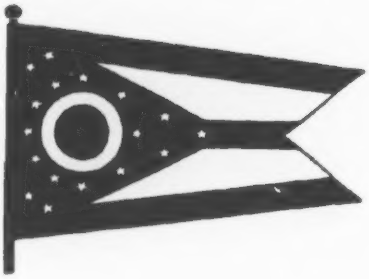
The state of Ohio also has symbols. The state bird is the cardinal. The state flower if the carnation. The state tree is the buckeye. The state flag is red, white, and blue and has seventeen stars because it was the 17th state of the United States. These symbols are represented below.



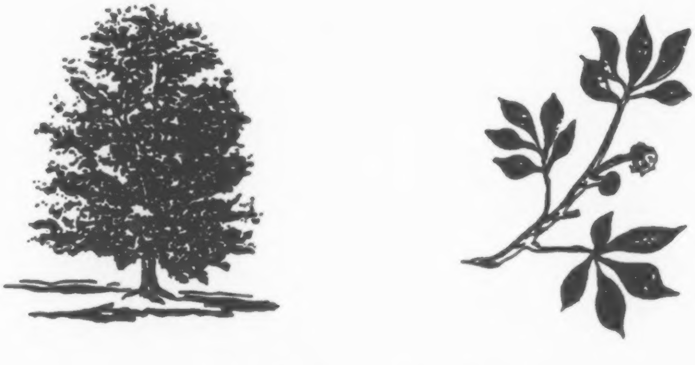
The Cardinal: State Bird



The Carnation: State Flower



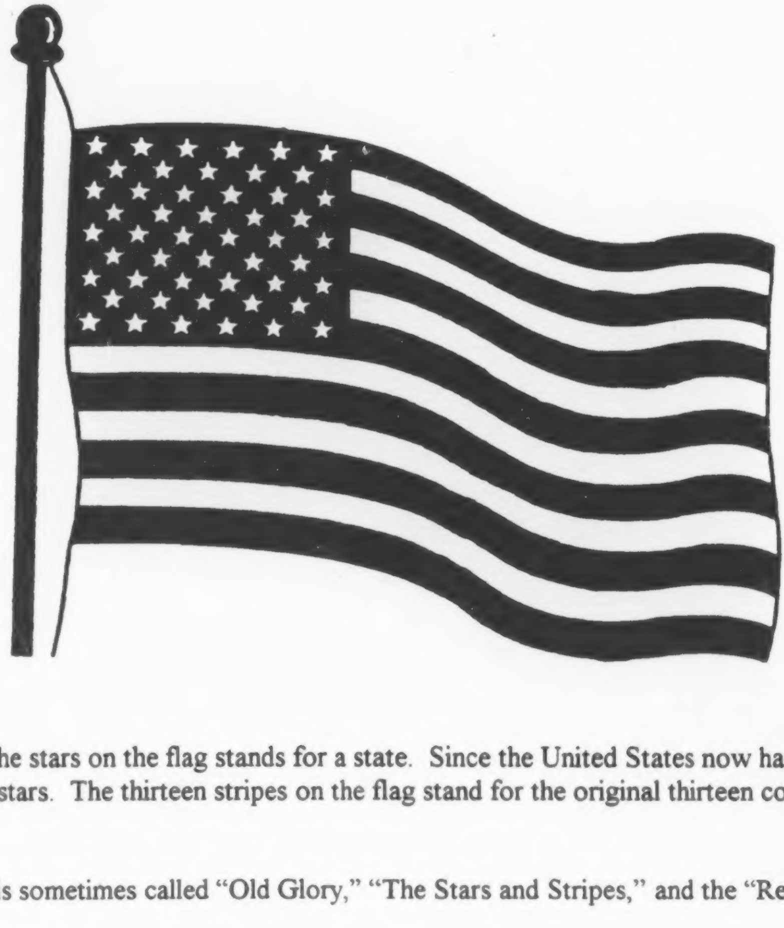
The State Flag



The Buckeye: State Tree

The Flag of the United States of America

Look at the picture of the flag of the United States below. Nothing symbolizes the country of the United States of America more than the American flag. The flag is red, white, and blue. The stars are white on a blue background. The stripes alternate red and white.



Each of the stars on the flag stands for a state. Since the United States now has fifty states, the flag has fifty stars. The thirteen stripes on the flag stand for the original thirteen colonies of the United States.

The flag is sometimes called "Old Glory," "The Stars and Stripes," and the "Red, White, and Blue."

The Pledge of Allegiance and the National Anthem

The Pledge of Allegiance

I pledge allegiance to the flag of the United States of America and to the republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

The National Anthem of the United States is known as "The Star Spangled Banner." It was written by Francis Scott Key during the bombardment of Fort McHenry during the War of 1812. The words of the National Anthem are below:

At which events do we sing this song?

"Star Spangled Banner"

Oh say can you see, by the dawn's early light,
What so proudly we hailed at the twilight's last gleaming?
Whose broad strips and bright stars, through the perilous fight,
O'er the ramparts we watched, were so gallantly streaming!
And the rocket's red glare, the bombs bursting in air,
Gave proof through the night that our flag was still there.
Oh say, does that star spangled banner yet wave
O'er the land of the free and the home of the brave?

Separation of Powers

When the United States Constitution (the supreme law of the land) was written, the Founding Fathers wanted to make sure that America's government would never become so powerful that it could dominate its people or abuse its citizens' rights. One way of lessening the power of the central government is by dividing it among different levels. In the United States, the power to rule or govern has been separated between the following three levels:

1. **National (federal) Government** - Located in Washington D.C.
2. **State Government** - In Ohio, this is located in Columbus.
3. **Local (city) Government** - Usually located in the "City or Town Hall."

This idea of dividing up the government's power among national and state levels is known as **federalism**. All fifty states have legislature and local (city council) governments that can pass laws and ordinances which do not violate the United States Constitution.

In addition, separating the power between three distinct branches is another way of limiting the power of the central government.

Branches of the Government

The division of the government's power by dividing up its duties among three branches is another "separation of powers," and it is a key element in keeping our country free.

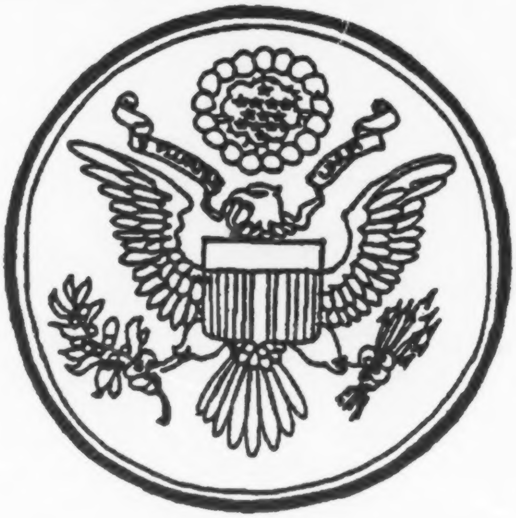
Separating the duties and powers of government among the branches guarantees that no one person or small group can become too powerful. In past history, the unwillingness to separate the powers of government has often led to abuse of individual liberties.

The chart below illustrates the division of our government's power among the three levels and branches. It also gives the titles of leaders and governmental bodies.

Three Levels and Branches of Government

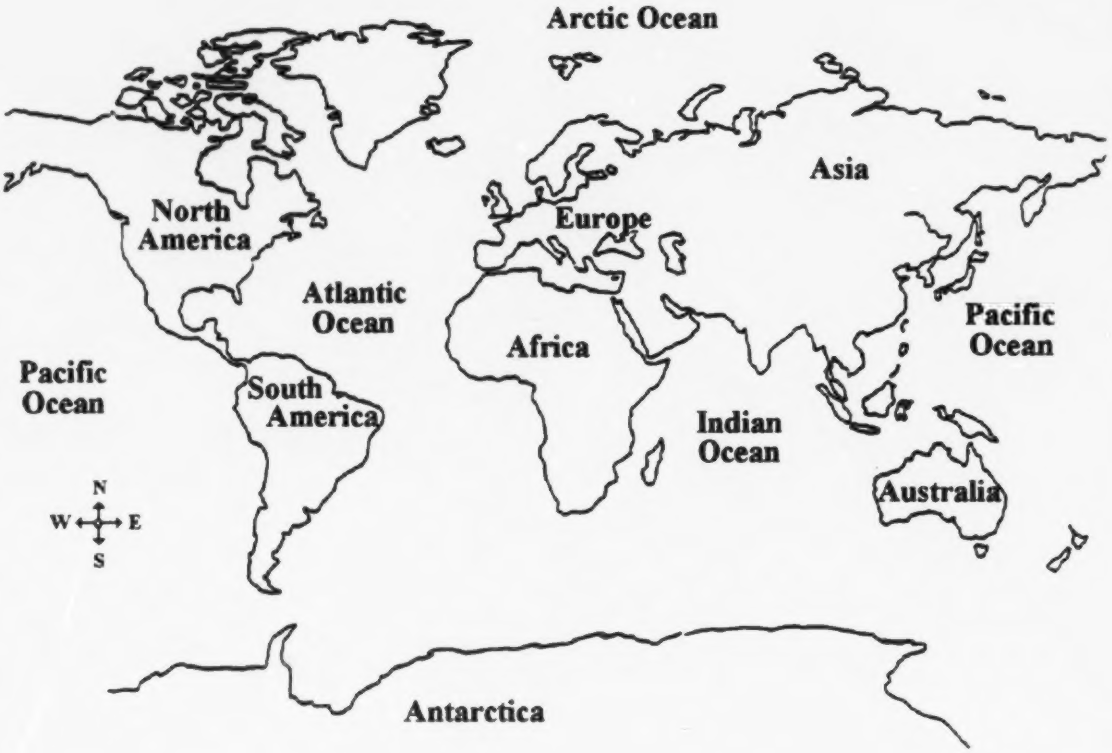
	NATIONAL LEVEL	STATE LEVEL	LOCAL LEVEL
EXECUTIVE BRANCH	President	Governor	Mayor
LEGISLATIVE BRANCH	United States Congress: • House of Reps. • Senate	General Assembly: • State House • State Senate	City Council: • Elected council members
JUDICIAL BRANCH	Federal Courts: • Supreme Court • Court of Appeals • District Courts	State Courts: • State Supreme • State Appeals • Trial Court	Local Courts: • Civil Cases • Criminal Cases

Seal of the United States



Where can you find this seal?

The World


Arctic Ocean
Asia
North America
Europe
Atlantic Ocean
Pacific Ocean
Africa
Pacific Ocean
South America
Indian Ocean
Australia
N
W
E
S
Antarctica

There are seven continents in the world. A continent is a large area of land. The United States is located on the continent of North America.

There are four oceans in the world. An ocean is a large body of salt water that covers 71% of the earth's surface. The United States is located between the Pacific Ocean on the west and the Atlantic Ocean on the east.

A hemisphere is one-half of a globe that can be divided into northern and southern, or eastern and western. The United States is located in the Northern and Western Hemispheres.

Citizenship

Where in the World?

Fill in the spaces with the correct word.

- What country are you from?

____

- On what continent is your native country?

____

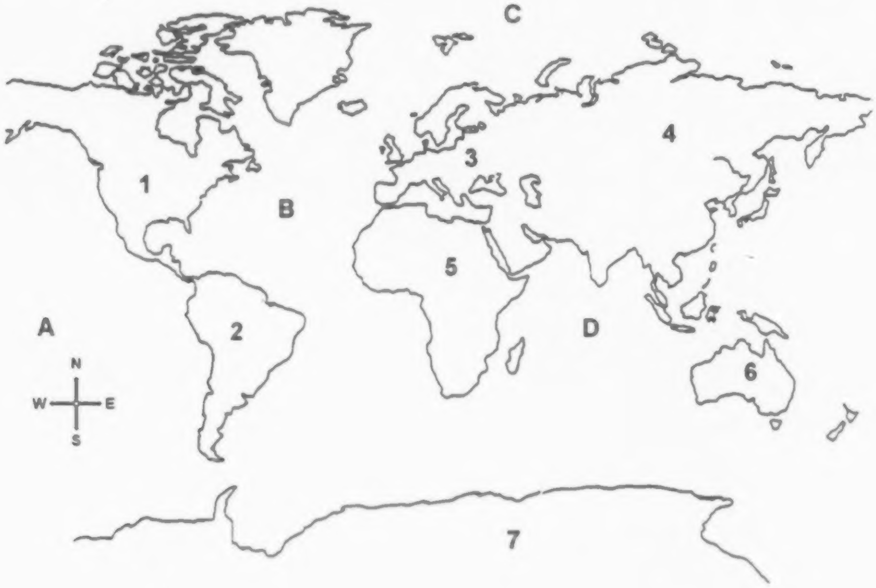
- What is the nearest ocean to your native country?

____

Did You Know . . .

. . . that in 1903, attorney-poet, John Milburn Harding wrote this about Ohio?

"Ohio, name for what is good and grand, with pride we hail thee as our native



Do the following on the map:

- Write the name of the continent that corresponds to each number.
- Write the name of the ocean that corresponds to each letter.
- With your pencil, shade in the continent where you were born.

Follow Buckeye Guy's lead to find more information on this topic.

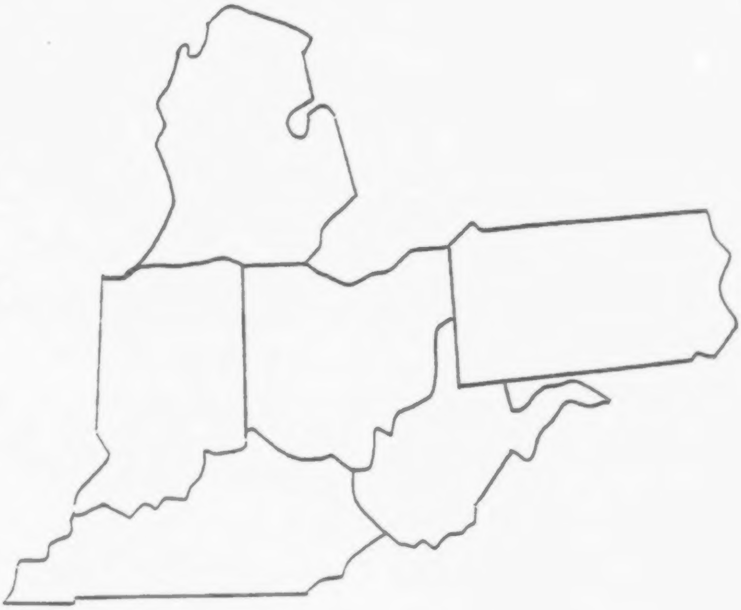
Almanac

Citizenship

State Your Location

Use the map to do the following:

- ☐ Label Ohio and all its border states.
- ☐ Indicate the location of Columbus with a star (★).
- ☐ Shade Ohio with a red pencil.
- ☐ Use a marker to indicate the Ohio River
- ☐ Label Lake Erie and shade it with a blue pencil.



Where Were You Born?

Using an atlas, research your native country and then make a map showing its location in the world, the national capital and the city in which you were born.

Did You Know. . .

. . . that there are only 15 states smaller than Ohio?

Follow Buckeye Guy's lead to find more information on this topic

Use blank outline maps provided on pgs. 70 & 71, to locate the following places which may appear on the proficiency test: the United States, Ohio, Washington, D.C., and Columbus, Ohio.

Citizenship

Public Opinion Poll

HOW PEOPLE FEEL ABOUT SMOKING IN PUBLIC PLACES
Results of Local Opinion Pole

Questions Asked	YES	NO	DON'T KNOW
1. Do you think smoking cigarettes is harmful to your health?	85%	14%	1%
2. Do you think smoking is harmful to non-smokers exposed to the smoke?	60%	33%	7%
3. Do you think smoking should be forbidden or banned from all public places?	53%	41%	6%
4. Would you vote for a candidate who favored a ban on public smoking?	42%	39%	19%

Source: Town Pollsters Associates, Inc.

1. On what subject were people polled?
   A. tax breaks for tobacco farmers
   B. smoking in public places
   C. smoking and Cancer

2. What information is listed in the left side of the table?
   A. questions asked in the poll
   B. answers to the poll questions
   C. percentage of the people polled

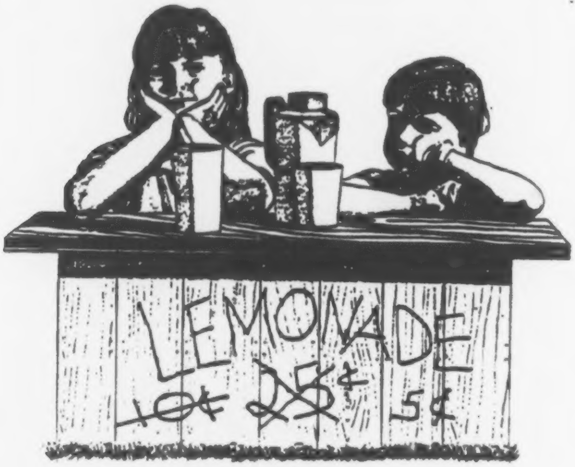
3. Check the "Source" note below the table. Who conducted the poll?
   A. Louis Harris
   B. George Gallop
   C. Town Pollsters Associates, Inc.

4. A majority of the people who were polled
   A. would vote for a candidate who favored a ban on smoking.
   B. would not vote for a candidate who favored a ban on smoking.
   C. think that smoking is harful to non-smokers exposed to the smoke.

Answers: 1. B; 2. A; 3. C; 4. A

Citizenship

Kid's Economy



Work in small groups to answer the following questions about the picture above.

1. What is in supply?
2. What happened to the price of the product? Why?
3. Do you think that more people will buy the product with the new price?
4. Use the laws of supply and demand to explain the picture.
5. What are some factors besides the price that might influence the demand of this product?
6. What new circumstances may cause the market price of this product to return to the original asking price of the sellers?

Follow Buckeye Guy's lead to find more information on this topic.

Plan a trip to several historical sites in Ohio. There are some great resource guides such as:

One Tank Trips by Neil Zurcher
OHIO Pride by Jeff Traylor

Citizenship

Who's Who?

Materials: election signs, TV/newspaper ads

Your child will become aware of various political races and what branch of government is being represented.

During election year, political signs will be "popping up" in various yards. As you are driving through the neighborhoods, discuss the different political parties, candidates, and the various branches of the government involved.

Here and There

Materials: road map of Ohio, a map of the Eastern U.S.

Your child will be able to identify states that touch Ohio and be able to find major landmarks:

- major cities
- major highways
- major rivers
- state capital
- where you live
- surrounding states
- state parks

As you are driving, perhaps your child can take out an Ohio map, and decide what directions you are going and major land you are approaching.

Be prepared for questions!

As you are traveling, here are some questions:

Which way are we traveling?

Are we coming to a river or a major landmark?

★ After the ride, the map can be used in your home. Lay out the map on the table and find states that border Ohio and the directions.

Directions for Here We Go!

Cut out and shuffle the Game Cards on pg. 85 & 86.

Place them face down by the game board on pp. 88 & 89. The player whose birthday comes first in the year goes first.

The first player to reach **finish** wins.

★ The number of spaces you move is on the game card. You only move if you get the question correct.

Game Piece Hints: Use 2 coins. One player is "heads" and one player is "tails" or use game pieces from other games.

ANSWER KEY FOR GAME on pg. 87

Follow Buckeye Guy's lead to find more information on this topic.

An Amish farm and home tour will give you a complete understanding of the Amish. The guided home tour and the slide presentation on lifestyles and traditions lasts twenty (20) minutes. You may visit Mon. - Sat. 10-5. The farm is located 1 mile east of Berlin on S.R. 39. P.O. Box 270, Berlin, OH 44610. (216) 839-2700.

Visit the Cuyahoga Valley National Recreation Area with its towpaths, canal locks and quarry on Riverview Road. Parking lots and information signs are along the Old Ohio-Erie Canal. South on Riverview Road off Rt. 303. *FREE!*

FLASHCARDS

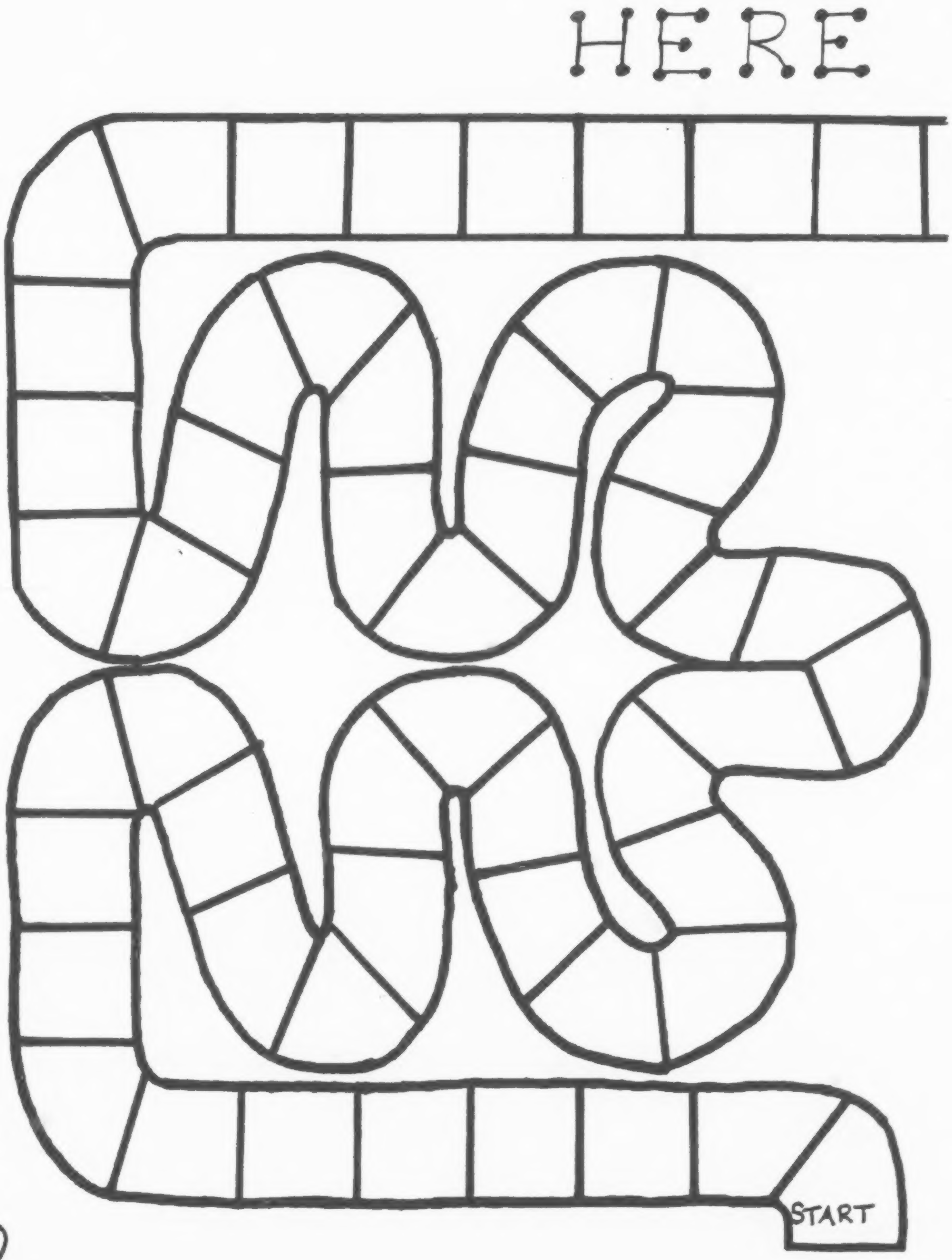
You blew a tire! Lose one turn.	1 Give one reason why Indians built mounds. **1 space**	10 Who was the first governor of Ohio? **3 spaces**
You are a careful driver! Take an extra turn.	2 Why were the French and Indian Wars fought? **3 spaces**	11 In what year did Ohio become a state? **1 space**
Good For You! You used your turn signals. Move ahead one space.	3 Name 2 Indians tribes that once roamed Ohio. **2 spaces**	12 What number state was Ohio to enter the Union? **1 space**
You ran out of gas! Go back two spaces.	4 What was the Northwest Territory? **1 space**	13 Who was the first President from Ohio? **2 spaces**
You passed on a curve! How dangerous! Go back three spaces.	5 What does a governor do? **2 spaces**	14 What is the capital of Ohio? **1 space**
ENGINE TROUBLE! Lose one turn.	6 Was Ohio for or against slavery? **1 space**	15 In what city would you find the Pro Football Hall of Fame? **1 space**
You obeyed the speed limit! Switch places with the person ahead of you or move ahead 3 spaces.	7 What was the Underground Railroad? **2 spaces**	16 What famous Air Force base is located near Dayton? **3 spaces**
You threw trash out of the car! Lose one turn.	8 Who were Morgan's Raiders? **3 spaces**	17 What is Ohio's nickname? **2 spaces**
You took a parking spot marked "handicapped" when you have no handicap! Go back 5 spaces.	9 How many times was Chillicothe the state capital? **2 spaces**	18 How many red stripes are on the Ohio flag? **2 spaces**

FLASHCARDS

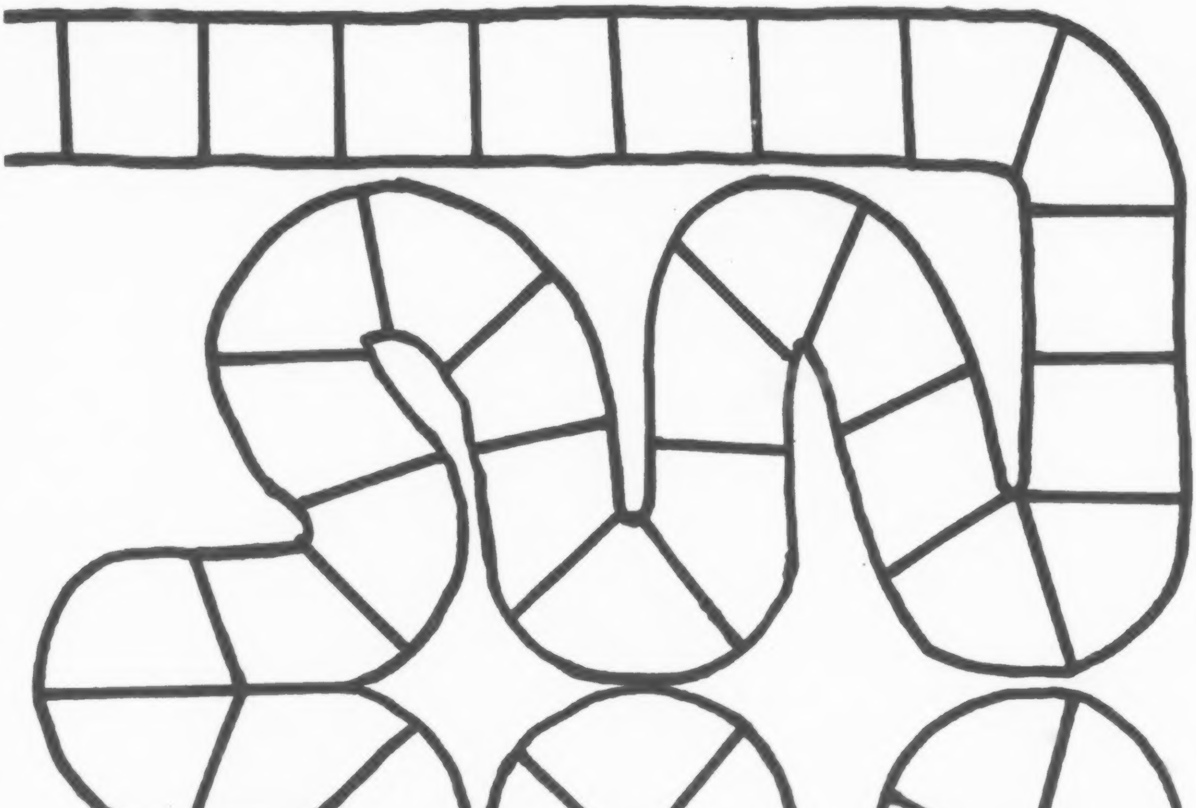
19 How many white stripes are on Ohio's flag **1 space**	28 When did the mound builders reach Ohio? **3 spaces**	37 Out of what territory was Ohio carved? **3 spaces**
20 What is the shape of Ohio's flag? **2 spaces**	29 Who was the first European person to explore Ohio? **3 spaces**	38 How many senators represent Ohio? **1 space**
21 How many stars are on Ohio's flag? **3 spaces**	30 What is the name of Ohio's first settlement? **2 spaces**	39 Name any three presidents from Ohio. **1 space**
22 On the State Seal, what does the sheath of wheat represent? **2 spaces**	31 What river forms the southern boundary of Ohio? **2 spaces**	40 Name 2 offices that are part of Ohio's executive branch. **2 spaces**
23 What is Ohio's state flower? **1 space**	32 What famous Ohioan was the first person to set foot on the moon? **2 spaces**	41 Name two of the three branches of government. **2 spaces**
24 What is Ohio's state bird? **1 space**	33 What Indian chief was spokesman for the Indians of the Ohio Valley? **3 spaces**	42 What famous Ohioans invented the 1st successful self-propelled airplane? **3 spaces**
25 What is Ohio's state insect? **1 space**	34 What is Ohio's highest point? **1 space**	43 What famous astronaut bcame an Ohio State Senator? **2 spaces**
26 What is Ohio's state tree? **2 spaces**	35 What body of water forms much of Ohio's northern boundary? **2 spaces**	44 Name the 2 branches of Congress? **1 space**
27 What is Ohio's state song? **2 spaces**	36 Name the states that border Ohio. **2 spaces**	45 What is the job of the judicial branch of government? **3 spaces**

HERE WE GO! - Answer Key

1. To mark graves, defense
2. The British, French, and Indians were fighting over control of land in North America.
3. Iroquois, Delawares, Shawnees, Miamis, Wyandot, Ottawa, Mingo
4. A huge mass of land north of the Ohio River, west of Pennsylvania, and east of the Mississippi.
5. He is the head of the executive branch.
6. Ohio was against slavery.
7. A secret way of passage that helped slaves escape from slave states.
8. Under General John Morgan these people invaded Ohio. They set fires, shot up towns and did as much damage as possible.
9. Twice
10. Edward Tiffin
11. 1803
12. 17th
13. William Henry Harrison
14. Columbus
15. Canton
16. Wright-Patterson
17. The Buckeye State
18. 3
19. 2
20. pennant
21. 17
22. richness of Ohio's land
23. Red carnation
24. cardinal
25. ladybug
26. Buckeye tree
27. "Beautiful Ohio"
28. Over 2,000 years agon
29. Robert Cavalier, Sieur De La Salle
30. Marietta
31. Ohio River
32. Neil Armstrong
33. Tecumseh
34. Campbell Hill
35. Lake Erie
36. Michigan, Indiana, Kentucky, West Virginia, Pennsylvania
37. Northwest
38. 2
39. McKinley, Hayes, Garfield, Taft, Harding
40. Governor, Liutenant Governor, Attorney General, Auditor General, State Treasurer, Secretary of State, Secretary of Education
41. Judicial, legislative, executive
42. Wilbur and Orville Wright
43. John Glenn
44. Senate, House of Representatives
45. Interprets the law


HERE
START

WE GO!



Citizenship

End to Beginnings

The first player gives the name of a place such as a mountain, river, city, country, lake, etc. The second player must name a place that begins with the last letter of the place named by the first player. HINT: It is helpful to have an atlas or dictionary close by to answer any questions that may arise.

Example: Player 1 - England
Player 2 - Denver
Player 3 - Red Sea

Round is over when one of the players is "stumped".

1-800-Buckeye

1. Call 1-800-BUCKEYE
2. Request tourist pamphlets about historical cites in Ohio.
3. When pamphlets arrive, ask your child to preview them with you.
4. Have your child read the ones of most interest to him.
5. Direct your child to rank order the pamphlets in his personal preferences.
6. Together make a pie graph with the available information (topics to be divided in the graph could vary. Suggestions: cost for a family to visit the sites, time to travel to the locations, amount of tourist population at the site in a given time of year, etc.)

Categories

Prepare three category cards: Legislative, Executive, Judicial. On smaller cards write each of the following words on a separate card; Senate, House of Representatives, President, Supreme Court, makes laws, Vice-President, enforces laws, interprets laws, judges. Ask your child to place the smaller cards under the appropriate category words.

Did You Know. . .

. . . that there are many covered bridges in Ohio? Take a guess how many.

Answer: 175

Follow Buckeye Guy's lead to find more information on this topic.

At many family restaurants, hotels, motels, and gas stations, there are racks of free pamphlets of various places of interest in Ohio.

Visit the Cleveland Museum of Natural History, Wade Oval, University Circle, Cleveland, Ohio 44106. 231-4600. Ohio's largest natural science museum. Displays include mounted dinosaurs, exhibits of prehistoric and North American Indian life.

Crawford Auto-Aviation Museum. 10825 East Boulevard, Cleveland, Ohio 44106. 721-5722. Collection of more than 200 restored vehicles from the 1890's to the present restoration shop in operation.

Kidron Heritage Center, Kidron, Ohio 44636. 847-9111.

Citizenship

Letters to Our Leaders

Write a letter to your state legislator to find out what they like about their work, what they find most difficult, and what they think is good preparation for being in the state government.

All About Me

1. Go through your family album or picture box for pictures of your child from his early life until now.
2. Arrange the pictures in order with appropriate dates.
3. Secure pictures on a strip of computer paper or other long paper.
4. List dates of your newly created time line on a sheet of paper.
5. Using references at home such as encyclopedias or library resources select key historical events to add to your personal time line.

Extensions:

1. Combine all family members pictures for a broader time line.
2. Include grandparents and other older relatives.

Citizenship

Go through any newspaper looking for articles based on fact. Now look for articles based on opinion. Make a notebook showing examples in it. Write a sentence explaining why each is fact or opinion. Talk to an adult about each article.

Did You Know. . .

Your state legislators' addresses:

The Honorable William Batchelder
State Representative
Ohio House of Representatives
77 South High Street, 14th Floor
Columbus, OH 43266-0603

The Honorable Mike Wise
State Representative
Ohio House of Representatives
77 South High Street, 11th Floor
Columbus, OH 42366-0603

The Honorable Grace Drake
State Senator
Ohio Senate
State House, Room 221
Columbus, OH 43266-0604

Follow Buckeye Guy's lead to find more information on this topic

In the local newspaper, have your child read and identify stories about federal, state, and local government.

Citizenship

Roots

Identify the various cultural groups that have lived in Ohio. The phrase "cultural group" refers to a number of individuals sharing unique characteristics, e.g., race, ethnicity, national origin, and religion.

Identify or compare the customs, traditions, and needs of Ohio's various cultural groups.

Visit Holmes County and speak with the people in towns such as Charm, Sugarcreek, and Millersburg. Visit a one room school house. Ask an Amish person to describe his or her daily, weekly, monthly, and yearly routines and customs. Have your child compare his or her own personal daily, weekly, monthly, and yearly routines and customs. Have your child create his or her own family trees similar to the one shown in the Kidron-Sonnenberg Heritage Center.

West Side Market

To help your child identify and compare customs and traditions of various ethnic groups, a visit to the multi-cultural setting of the West Side Market would help greatly.

During the holiday season, the market is bursting with various foods, languages, and customs. It is an inexpensive way to observe a wide variety of people and customs, and get great bargains.

The market is open Monday, Wednesday, Friday, and Saturdays. It is located on W. 25th St. in Cleveland. One can get there by taking I-71 to W. 25th St. exit, turn left on W. 25th St. and head North. There is free parking on the lot east of the market.

Did You Know...

... that there are many cultural groups in Ohio? Which ones do you know?

... that you can abbreviate all 50 states. Each state abbreviation uses only 2 letters and no period.

Example:	OH	Ohio
	TX	Texas

Follow Buckeye Guy's lead to find more information on this topic.

Have an adult help you draw a map of the route you take to get to the store. Be sure to label the streets, important landmarks, and buildings. Label north, south, east, and west on your map.

Citizenship

Family Geography Bingo

In your travels beyond your neighborhood, see how many of these geographic features and terms your family can find as they work together (see pg. 94). Please take time to discuss as a family each of these you find. Don't be afraid to guess. In some cases there may be more than one answer. When you have found and answered each square put a star on it.

Ohio is located in such a way that it has both glaciated and unglaciated land. Some of our best top soil came from the glacial deposits. We also have lakes, big boulders and rocks because of the retreating glaciers.

Medina County is part of the great divide. To the north of this line all rivers flow into Lake Erie, and to the south of it all rivers flow into the Ohio River.

Our One Tank Trips

Several good trips you can make as a family include:

1. Hale Farm near Peninsula, Ohio.
2. Towpath Canal - lock park near Peninsula, Ohio.
3. Tower City - just off Cleveland Public Square in Tower City is an information desk where you can purchase tickets to go to the observation deck. Up there at each window they have labeled pictures of what you see plus some history. You can clearly see the Cuyahoga River and the port of Cleveland. Can you see why this is the North Coast?
4. Take your child with you when you vote.

Did You Know. . .

. . . that a popular candy was developed by a Cleveland resident? It is called LifeSavers.

. . . that Harry Stevans of Niles coined the term "hot dog" for the frankfurters he served wrapped in a roll?

. . . that C. R. Taylor of Cleveland patented the ice cream cone-rolling machine on June 29, 1924.

. . . that in the years leading up to the Civil War, Medina was a link in the Underground Railroad, helping runaway slaves escape to new lives in the north or in Canada? Fugitive slaves were hidden in the attic of the historic Blake House, 314 E. Washington St. The house is now a private residence.

Follow Buckeye Guy's lead to find more information on this topic.

For more IDEAS,
get the book One Tank Trip by Neil Zurcher available in bookstores and libraries.

Family Geography BINGO

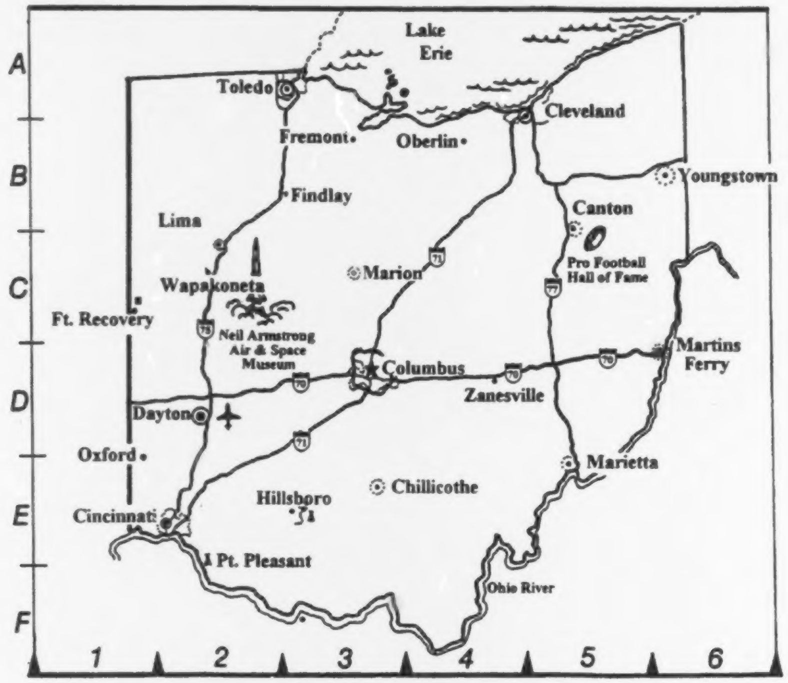
When one of the land features is sighted when traveling, use the following questions for discussion. When you have found and answered each square, put a star (★) on it.

BAY How are people using the bay?	FOREST How is the forest being used?	ISLAND What body of water is it in? How is the land being used?	PORT Where do you think ships come from? Can you name any products being shipped?
CLIFF What does it show about the land under the top layer?	WATERFALL What direction is the river flowing? North, South, East, or West? Estimate the drop.	PLAIN How is the land being used?	LUMBER MILL Guess why it is located there?
STRIPMINE What do you think is being mined?	PLATEAU How is the area being used?	RIVER FLOWING SOUTH Where do you think this river goes?	WETLANDS OR FLOOD AREA Why is it so wet or easily flooded?
INDUSTRY Why do you think this company was built here?	CANAL What places were connected by this canal?	PENINSULA What bodies of water does it face?	RIVER FLOWING NORTH What is the name of the river? What does it flow into?

Citizenship

All Around Ohio

Use the map below to answer the questions on this page and the next page. Though there are many U.S. state and county roads that connect the hundreds of Ohio cities and towns, only the major ones are shown below.


Lake Erie
Toledo
Fremont
Oberlin
Cleveland
Youngstown
Findlay
Lima
Canton
Pro Football Hall of Fame
Wapakoneta
Marion
Ft. Recovery
Neil Armstrong Air & Space Museum
Columbus
Martins Ferry
Zanesville
Dayton
Oxford
Marietta
Chillicothe
Hillsboro
Cincinnati
Pt. Pleasant
Ohio River
75
71
70
77
A
B
C
D
E
F
1
2
3
4
5
6

Write the names of the two cities in Ohio that are near the end of each of the following interstates:

70 ____________________ 75 ____________________

71 ____________________ 77 ____________________

2. The __________ forms the southern boundary of Ohio, and __________ forms much of its northern boundary. Label these bodies of water on the map above.

Did You Know. . .

. . . that one of the world's fastest and longest roller coasters is located at King's Island near Cincinnati? It is called the Beast.

Follow Buckeye Guy's lead to find more information on this topic.

To get a free, full size map of Ohio, write:
Ohio Dept. of Transporatation
25 S. Front St.
Columbus, OH 43215-0899

Citizenship

All Around Ohio (continued)

3. Describe two different routes from Toledo to the state capital.

4. Describe how you would get from Dayton to the Pro Football Hall of Fame.

5. What are the map coordinates for four large cities in Ohio beginning with the letter C?

6. What are the interstate highway numbers connecting the following pairs of cities?

Columbus and Cincinnati ______________________________

Toledo and Lima ______________________________

Marietta and Cleveland ______________________________

Canton and Cleveland ______________________________

Dayton and Findlay ______________________________

7. Because Ohio is the "Mother of Presidents," it has several historic sites associated with Ohio presidents. Using the Presidents' name only, label the sites listed below in the cities in which they are located on the map.
   - The Rutherford B. Hayes Library and Museum in Fremont
   - The Warren G. Harding Home and Museum in Marion
   - The Grant Memorial in Point Pleasant
   - The William Howard Taft Museum in Cincinnati
   - The William McKinley National Memorial in Canton

8. Label the following interesting places on the map:
   - The Great Serpentine Indian Mound near Hillsboro
   - Kelleys Island, home of Inscription Rock
   - Wright-Patterson Air Force Base near Dayton
   - Fort Recovery, used during Indian Wars

9. Label two of Ohio's many fine universities: Miami, established in 1809, and Oberlin, the country's first college for both men and women.

10. Draw stars next to the two cities that were once Ohio's capitals.

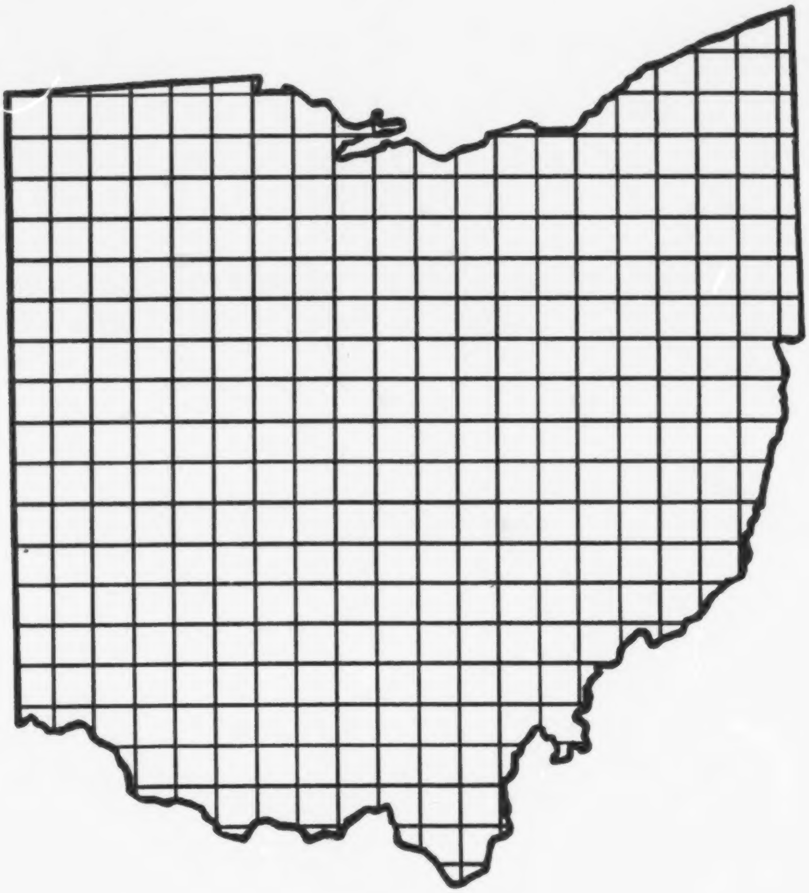
11. Draw a red circle around Neil Armstrong Air and Space Museum in Wapakoneta.

12. Label two other places on the map you have visited or would like to visit.

Buckeye Bonus: Make a travel brochure such as a postcard pack depicting points of interest in Ohio. Glue or draw pictures on it and include information about each place.

Puzzling Places in Ohio

Using the outline of Ohio, make a wordsearch containing cities and towns in your state. Write clues to the places you choose on the lines below. Include at least ten of them. Exchange your puzzle with a friend.



1. ______________________________ 2. ______________________________
3. ______________________________ 4. ______________________________
5. ______________________________ 6. ______________________________
7. ______________________________ 8. ______________________________
9. ______________________________ 10. ______________________________

Buckeye Bonus: On another piece of paper, list an important fact about each of the cities you have chosen.

Citizenship

Citizenship

Talk about the meanings of goods and services. With your child, look over old credit card statements and discuss whether purchases were goods or services. Use two colors of highlighters or a pencil and a pen to mark each differently. Transfer this information to a T chart format. For example:

goods	services
tennis shoes	haircut

Famous Ohioans

Choose a famous person from the list of famous Ohioans. Using various books for resources, collect information to write a report about the person. (You can create a booklet of famous Ohioans.)

FAMOUS OHIOANS

Neil Alden Armstrong
Eliza Bryant
John Chapman
Salmon Portland Chase
Arthur Holly Compton
Harold Crane
George Armstrong Custer
Clarence Seward Darrow
Thomas Alva Edison
Harvey Samuel Firestone
William (Clark) Gable
James Abram Garfield
John Hershel Glenn Jr.
Benjamin Franlin Goodrich
Hiram Ulysses Grant
William Green
Zane Grey
Margaret Hamilton
Marcus Alonzo Hanna
William Gamaliel Harding
Benjamin Harrison
Rutherford Birchard Hayes
Woodrow Wilson Hayes
Bob Hope
Maya Ying Lin
William Holmes McGuffey
William McKinley
Paul Newman
Jack William Nicklaus
Annie Oakley
James Cleveland Owens
Rufus Putnam
Peter Edward Rose
Constance Mayfield Rourke
John Sherman
Steven Spielberg
Gloria Steinam
Carl Burton Stokes
Harriet Beecher Stowe
William Howard Taft
Tecumseh
James Grover Thurber
Orville Wright
Wilbur Wright
Denton True Young

Follow Buckeye Guy's lead to find more information on this topic.

Go to the library or use a computer to look up one of the following national holidays. Write a paragraph about why it became a holiday and when it is celebrated.

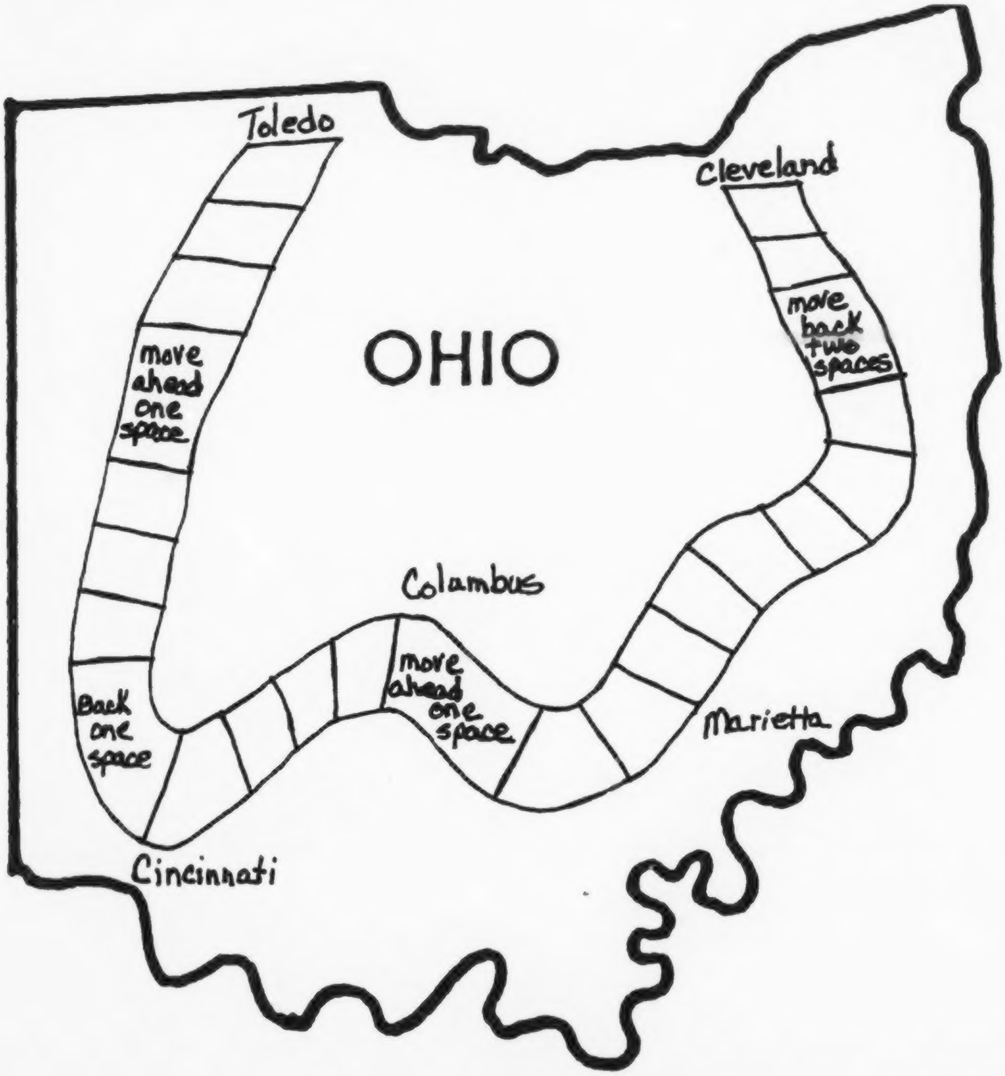
1. Memorial Day
2. Independence Day
3. Labor Day
4. Columbus Day
5. Veterans Day

Ohio History Game

- ☐ Use the gameboard provided or enlarge it on a larger piece of tagboard.
- ☐ Create questions about Ohio facts. (create questions from the encyclopedia, text books, books from library, Ohio brochures).
- ☐ Write your questions on 2" x 3" pieces of paper. Use as question cards on pg. 100-101. Put the answers at the bottom.

Instructions:

- ☐ The other person draws a card for you and reads the question to you.
- ☐ You answer the question. If you are correct, roll the die and move accordingly. (use any small object as a game piece).
- ☐ Take turns
- ☐ The first person to reach Cleveland wins.


Toledo
Cleveland
OHIO
move ahead one space
move back two spaces
Columbus
move ahead one space
Back one space
Marietta
Cincinnati

Science

Science Goals

STRAND I - NATURE OF SCIENCE

- Create and use groups to organize a set of objects, organisms, or events.
- Choose instruments to observe and/or organize observations of an event, object, or organism.
- Identify and/or compare the mass, dimensions, and volume of familiar objects in standard (inches) and/or nonstandard (paper clips) units.
- Use a simple key to distinguish between objects.
- Study a series of events and/or simple daily or seasonal cycles to predict what will come next.
- Study a simple procedure to carry out a specific result.
- Identify and/or discuss resources and tools used for exploring scientific events.
- Evaluate observations and measurements made by other persons.
- Show an understanding of the safe use of materials in science activities.

STRAND II - PHYSICAL SCIENCE

- Explain the operation of a simple mechanical device.
- Tell the characteristics of a simple physical change.
- Explain and/or predict the motion of objects and how their movements affect other objects.

STRAND III - EARTH AND SPACE

- Predict the weather from observed conditions and weather maps.
- Tell how human activity and the environment are related.
- Identify evidence and show examples of changes in the earth's surface.

STRAND IV - LIFE SCIENCE

- Explain the basic needs of living things.
- Tell ways organisms react to changing environments.
- Tell the difference between living and non-living things.
- Study various nutritional plans for humans.

NOTE: In general the science portion of the test is designed to assess long-term student learning, problem solving, and thinking skills, and is not limited to rote knowledge and facts.

SCIENCE EXPERIMENTS

Investigating and experimenting can be fun for your child and you! Remember first to discuss all possible hazards and then gather all materials before starting. When experimenting, three steps should be followed:

1. **PREDICT** what will happen before you do the experiment. Write your prediction down so you can refer back to it later.
2. **OBSERVE** during the experiment. Watch closely.
3. **CONCLUDE** by comparing the results with your prediction. Talk about why the experiment turned out the way it did.

Remember to follow safety rules when doing any experiment!

SCIENCE EXPERIMENT FORM

Name ____

My Experiment ____

Question: What do I want to find out?

____

____

____

____

Hypothesis: What do I think?

____

____

____

Procedure: How will I find out? (step-by-step)

1. ____
   ____
2. ____
   ____
3. ____
   ____
4. ____
   ____
5. ____
   ____

Results: What actually happened?

____

____

____

Conclusions: What did I learn?

____

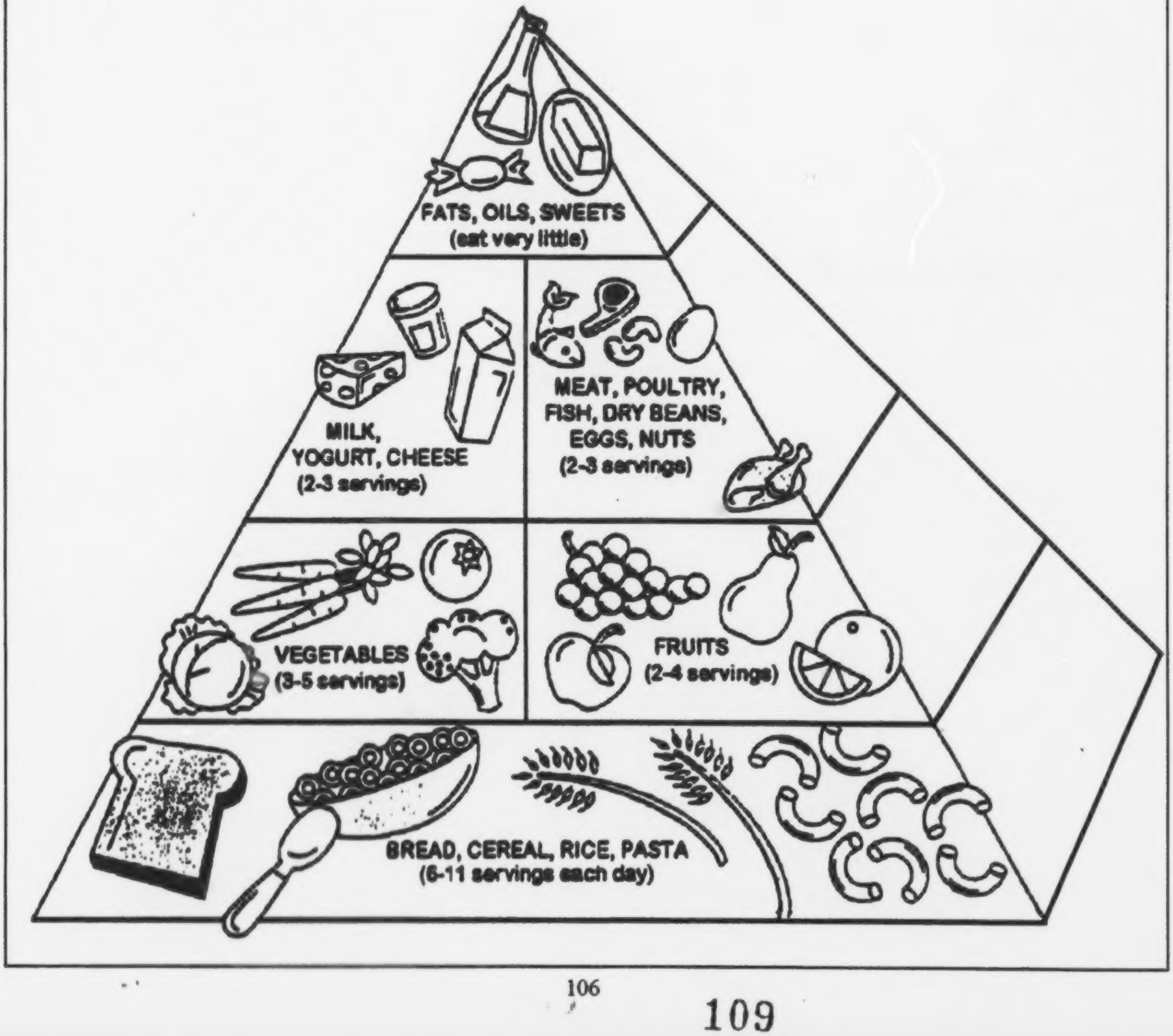
____

____

Pyramid Power Discussion

Eating right can be easy. Look at this pyramid. It can help you make healthy food choices. Experts say it is good to eat lots of bread, cereal, fruits, and vegetables. These foods are at the bottom of the pyramid. Foods with lots of fat and sugar are at the top. It is a good idea to eat less of these foods.

Write down everything you eat during one day. At the end of the day, compare your eating habits with the food pyramid. Then plan ways you can eat more healthily.


FATS, OILS, SWEETS
(eat very little)
MILK, YOGURT, CHEESE
(2-3 servings)
MEAT, POULTRY, FISH, DRY BEANS, EGGS, NUTS
(2-3 servings)
VEGETABLES
(3-5 servings)
FRUITS
(2-4 servings)
BREAD, CEREAL, RICE, PASTA
(6-11 servings each day)

Science

Making Waves

What do waves look like?

Materials: tall glass jar with top, cooking oil or mineral oil, water, blue food coloring.

Procedure:

1. Find a clear glass jar that is about twice as tall as it is wide. Fill the jar half full with lukewarm water.
2. Add blue food coloring to the water until the water is dark blue.
3. Slowly fill the jar with cooking oil or mineral oil. The oil will float on top of the water.
4. Screw the top very tightly on the jar. Turn the jar on its side. Observe the motion of the water. Then tilt the jar from end to end. Observe the changes in the motion of water.

Conclusion:

1. What happens to the water when you tilt the jar?
2. Describe the movement of waves in an ocean.
3. How is the movement of the water in the jar like the movement of ocean waves?

Did You Know. . .

. . . that many people call northern Ohio "America's North Coast"? Look at a map and try to figure out why.

Follow Buckeye Guy's lead to find more information on this topic.

Go to the information desk at the front of Tower City in Cleveland to take the elevator to the observation deck (small fee). Observe the waves on Lake Erie. Look at the Cuyahoga River's mouth to watch the movement of water into the lake.
Take the Goodtime III onto Lake Erie (ticket purchase required) to see, feel, and observe the waves on Lake Erie.

Science

It's Static

How does static electricity affect cereal?

Materials: puffed rice or puffed wheat cereal, a balloon, a piece of wool cloth

Procedure:

1. Do this activity on a dry day. Put about one teaspoonful of puffed rice or puffed wheat cereal into a deflated balloon.
2. Blow up the balloon. Tie a knot in the end.
3. Rub one side of the balloon against something made of wool. Rub the balloon back and forth against the wool about 70 times. Observe the cereal.
4. Hold your finger lightly against the balloon where there are some pieces of cereal. Observe what happens to the cereal as you move your finger.

Conclusion:

1. What did the cereal do after you rubbed the balloon against something made of wool?

   ____

   ____

2. What did the cereal do when you first touched the balloon with your finger?

   ____

   ____

3. What did the cereal do as you moved your finger?

   ____

4. Charges that are different from each other attract each other. Charges that are the same repel, or push away from each other. Was the charge on your finger the opposite from or same as the charges on the pieces of cereal? How do you know?

   ____

Extension: Try to create static electricity on a muggy, rainy day and again on a dry, cool day.

Did You Know . . .

. . . that Thomas Edison is considered one of the world's greatest inventors with 1,093 patents in his lifetime including the phonograph and the lightbulb.

Charles Brush of Cleveland invented the arc streetlight in 1876. His invention allowed Cleveland to be the first U.S. city with electric street lights.

Follow Buckeye Guy's lead to find more information on this topic.

Thomas Edison used electricity in many of his inventions. Visit his birthplace in Milan, Ohio. Call (419) 499-2135 for hours and fee information.

Science

Mass & Volume

How are mass and volume related?

Materials: small plastic container, measuring cup, water, balance (see Did You Know?), M & M candy

Procedure:

1. Put small plastic container in cup on one end of balance. Add M & M's to the other cup until the two cups are balanced. Record the number of M & M's = _____ grams in mass of empty jar.
2. Now pour some water into the container. Use the balance to find the mass of the container and the water. Record the mass in 2nd block.
3. To find the mass of the water, subtract the mass of the container from the mass of the water and container. Record this at Mass of water.
4. Pour the water into the measuring cup to find the volume of the water. Record the volume in ounces.
5. Repeat steps 2, 3, and 4 with more water.

Conclusion:

1. What was the volume of the water you used the first time you did this activity?

   ____

2. What was the mass of this amount of water?

   ____

3. What volume did you use the second time?

   ____

4. What was the mass of this amount of water?

   ____

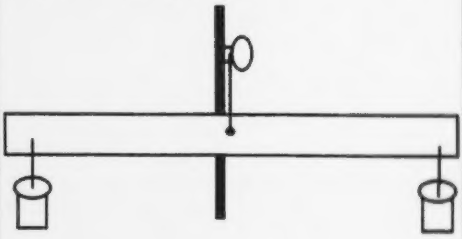
5. From what you have learned here, how are the mass and volume of water related?

   ____

	1st Time	2nd Time
Mass of Empty Jar		
Mass of water and jar		
Mass of water		
Volume of water		

Did You Know. . .

. . . that you can make a balance? To make a balance you need a wooden ruler. Drill a hole at each end 1/4 to 1/2 inch. Drill a hole in the middle. Attach a string through the middle hole and hang it over a doorknob. Use a paperclip opened up. Clip 1 end on end of the ruler and the other through the lip of the styrofoam cup.



1 gram = 1 M & M
1 gram = 1 regular paper clip

Science

Air Pressure

How can you show the force of air pressure?

Materials: yardstick or meterstick/newspaper/10 pennies

Procedure:

1. Balance a yardstick on the edge of a large table. Half of the yardstick should be on the table and half should be off.
2. Predict how many pennies you can put on the end of the yardstick that is not on the table before the yardstick tips and falls. Write this number on the table. Then test out your prediction. Count how many pennies it takes to tip the yardstick. Write this number on the table..
3. Set up the yardstick again. Fold a sheet of newspaper in half. Lay the newspaper on top of the end of the yardstick on the table. Repeat step 2.
4. Set up the yardstick again. Unfold the newspaper and lay the full-sized sheet over the yardstick. Repeat step 2.

Conclusion:

1. What force was used to keep the yardstick from tipping in steps 3 and 4?

   ____

2. In which steps was this force greater? How do you know? How much greater was the force?

   ____

   ____

   ____

Did You Know . . .

Neil Armstrong of Wapakoneta, Ohio, was the first person to walk on the moon on July 20, 1969. There is no air pressure on the moon.

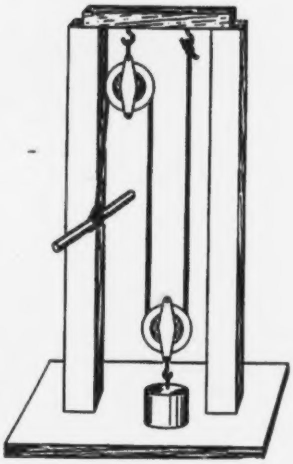
SET UP	NUMBER OF PENNIES PREDICTED	ACTUAL NUMBER OF PENNIES
Yardstick alone		
Half sheet of newspaper		
Full sheet of newspaper		

Follow Buckeye Guy's lead to find more information on this topic

Visit NASA's Visitor Information Center (VIC) in Cleveland. Look for ways air pressure is used in aeronautics.

Science

Pulleys



Explain the simple operation of a simple mechanical device. Demonstrate how a simple machine, the pulley, can increase work efficiency.

Materials: A wooden frame of 2' x 4' boards, two (2) small pulleys, cuphooks, heavy cord or light rope, a hammer, six (6) inches of doweling, and a weight.

Screw two (2) cuphooks in the bottom of the top board about twelve (12) inches apart. Hang a pulley from one (1) hook and tie one (1) end of the cord to the other hook. Thread the cord through the other pulley and then up through the fixed pulley. Tie the dowel on the end of the cord so it will not slip back through the pulley. Place a weight on the pulley that is hanging freely. Using the dowel handle, pull the weight up and see how much effort it takes. Have several members of your family try to lift the weight by hand and then have them lift the weight using a pulley system. Have family members discuss their findings.

Digging In Soil

Materials: utensil to dig soil, magnifying glass

Observe areas around or near your house. Find an area that has damp soil. Choose one area and observe it. Are there any animals? Plants? Dig up a few cups full of soil. Are there any animals? Plants? If you have a magnifying glass, observe the area "up-close". Write down everything you observed about the area.

Did You Know . . .

. . . that you can observe someone's garage door as it opens and closes to see how pulleys help move the heavy door?

Follow Buckeye Guy's lead to find more information on this topic.

Visit your library to find books that tell you how to build other simple machines.

Science

Classifying Animals

Animals are classified as carnivores (meat eaters), herbivores (plant eaters), and omnivores (meat and plant eaters). List several animals that you think belongs to each of the categories. Check books and encyclopedias to see if you are correct. What classification of animal are you?

Why Recycle?

Materials: 1 medium sized flower pot, soil, trash

Cover the hole in the bottom of the flowerpot with a stone and fill the pot 1/3 full with soil. Collect small pieces of trash such as paper, styrofoam, foil, and leaves. Also collect a few food scraps such as orange peels, bread, apple cores, etc. Add a layer of trash and food scraps to the flower pot. Fill the remainder of the flower pot with soil (be sure the trash and scraps are covered completely). Sprinkle the flower pot with water so that the soil becomes moist but not too wet. Cover the flower pot with plastic wrap and place it in a dark, warm area. Add water occasionally to keep the soil moist. After 3 weeks, dump the contents of the flower pot on a thick layer of newspaper. Spread out the soil (you may want to wear gloves or use a garden tool) so you can see what has happened to the trash and food scraps. Which materials have *decomposed* (broken down)? Which materials have stayed the same? Discuss the importance of recycling trash.

Freezing

Plain water freezes at 32°F (0°C). But what happens if you put salt into the water? Find two identical freezer-safe containers. Plastic margarine bowls work well. Pour 1/2 cup of water into the first container. Pour 1/2 cup of water and 1 teaspoon of salt into the second container. Stir well. Put both containers in the freezer. You might want to label them. Check them every 15 minutes. Notice which one freezes first. When the salt water starts to freeze, take its temperature. Compare the temperature of freezing salt water to that of freezing plain water at 32°F. Now talk about: why do we put salt on our roads during cold, wet weather?

Did You Know . . .

. . . that many gardeners have a compost pile? They put their yard waste and food scraps into their compost pile. After many weeks the compost decomposes into soil that the gardener's recycle into their gardens and flower beds.

Ohio is the leading producer of rock salt with reserves to last the U.S. for the next 150,000 years. Salt is mined from tunnels 2000 feet below Lake Erie.

Science

Fabulous Flashlights

In this activity, you will use a simple flashlight to learn more about electric circuits and to discover different kinds of materials through which electricity can travel.

Materials: standard 2-battery flashlight, blunt-end scissors, pencil, a quarter, a nickel, a penny, paper, aluminum foil, and plastic wrap.

1. Have you ever looked inside a flashlight to figure out how it actually works? Ask you adult partner to help you take your flashlight apart. See whether you can figure out the complete circuit through which the electricity flows to make the bulb light. How do you thing the switch works?
2. The electric current in your flashlight includes two batteries. Look at one of the batteries. It has a bump on one end, and the other end is flat. These are the terminals of the battery. Look carefully and you should find that one terminal is marked positive (+) and the other is marked negative (-). What kind of terminal is the end of the battery with the bump?
3. Do you think it matters how the two batteries are arranged in your flashlight? Try arranging the batteries in different ways and see whether the flashlight will still work.
4. What do you think will happen if you put the two batteries in the flashlight the correct way, but you put a quarter between them? Do you think the bulb will still light when the flashlight is turned on? Try it and see! Was the electricty able to travel through the quarter? What about a penny or a nickel?
5. With the help of your adult partner, cut circles the size of quarters from paper, aluminum foil, and plastic wrap. What happens if you place each of these between the batteries in the flashlight?
6. Separate all the materials you tested into conductors and insulators. Was the bulb brighter with some conductors than with others?

The Water Cycle

There are 3 steps in the water cycle. They are as follows:

1. **EVAPORATION** occurs when water turns to water vapor.
2. **CONDENSATION** occurs when water vapor changes back into tiny drops of water.
3. **PRECIPITATION** occurs when the water drops fall again in the form of rain, hail, or snow.

You can demonstrate this cycle by inverting an empty glass in the grass on a sunny day. Water will evaporate from the grass into the glass. Then the water will condense into droplets. Drops of water will run down the sides of the glass and the water will go back to the ground.

Did You Know . . .

. . . that all inland lakes in Ohio are man-made?

Weather fronts usually move across Lake Erie from northwest to southeast. When the clouds reach land they empty their rain and snow along the Erie coastline east of Cleveland. Compare precipitation between the snowbelt and Medina County.

Science

Air Pollution

In large cities where air pollution is bad, you may see it on your skin or clothes. Do we have air pollution in Medina County? Conduct your own test to find out. Wait for a dry, sunny day. Put a coffee filter outside in a place where it can't be blown away. Come back at the end of the day and see whether the filter collected dirt particles from the air. Now try putting filters in other places. Put a filter near a busy street or highway. Where else might you put a filter? Talk with an adult about things we can do to cut down or eliminate air pollution around us.

Did You Know . . .

. . . that you can do something about air pollution? Plant a tree. Trees give off oxygen, and they help "clean" the poison out of the atmosphere.

Is There a Mad Scientist In The House?

1. Discuss the 3 forms of matter with your child (solid, liquid, gas).
2. Pour 1/2 cup of vinegar into an empty 2 liter pop bottle.
3. Using a funnel, put one tablespoon of baking soda into a balloon.
4. Discuss the states of matter in the balloon and the bottle (solid in the ballon and liquid in the bottle).
5. Attach the balloon on top of the bottle with the baking soda tipped to one side so none falls in just yet.
6. Allow your child to shake the contents of the balloon into the bottle.
7. Discuss the reaction that you observe.
8. Encourage your child to record this experiment step by step with illustrations from start to finish.
9. Allow your child to *hypothesize* (guess) what would happen if other liquids were used such as water or milk; also other solids such as flour, salt, or sand. Record predictions in chart or paragraph form.

Science

Weather Man

1. Encourage your child to listen to the weather report on either the radio or the television (or both) at least once a day for a week or so.
2. Begin to record in graph-style either the temperature or precipitation forecast for each day in your area.
3. Next, begin to observe the data on the weather map in the local newspaper. (If you only receive a newspaper once a week, extend this activity over a month or so).
4. Add the written data from the newspaper weather report to the radio and T.V. data you have graphed.
5. Make short journal entries to predict future weather patterns (a few sentences per day).
6. Talk about the similarities and differences between reports, predict why the data was the same or different between your sources.

Extension:

1. Write to the weather bureau at Cleveland Hopkins Airport or other local airports requesting copies of weather maps.
2. Add this data to your existing information.
3. Compare weather by precipitation, temperature, or both with weather in another area of the country.
4. Brainstorm with your child new ways to graph or display the old information gathered.
5. Create a new graph to include the data from the town in Extension #3.

Did You Know . . .

. . . that Ohio's lowest recorded temperature was -39°F at Milligan, Ohio, on February 10, 1899?

. . . that Ohio's highest recorded temperature was 113°F at Centerville, Ohio, on July 21, 1934?

. . . and that we have about 10 cloudless days per year?

Follow Buckeye Guy's lead to find more information on this topic.

Celebrate the work of the weather forecasting insect: the wollybear caterpillar. The festival is held in Vermilion, Ohio, complete with food, fun, and a parade.

Science

Classifying Objects

Examples of objects that can be observed: beans, buttons, pieces of cloth, kinds of cereals, pencils, pens, paper, candy, pasta

Observe an object. List the characteristic(s) that are the same and/or different for the object. (e.g.: buttons - some characteristics that can be used are color, shape, size, texture, number of holes).

Matter

Materials: balloons, ruler, string

To show that air has weight, blow up two balloons to about the same size. Tie a balloon on each end of the ruler. Suspend the ruler in the center from a string. Move the balloons so they are balanced and the stick is level. Pop one balloon, allowing the air to escape. The stick will tilt toward the end with the air filled balloon which is heavier.

Did You Know . . .

. . . that Ohio is the nation's largest grower of African Violets?

Plant Detective

Materials needed: 2 varieties of plants/seeds, journal (spiral notebook, loose leaf paper in 3-ring notebook, or paper in a folder)

Become a science detective. Purchase and plant two varieties of plants/seeds. Record all the *data* (information) about your plant/seed that you observe.

- date
- weather conditions
- predictions
- daily progress of plant/seed
- your work involved

Follow Buckeye Guy's lead to find more information on this topic

Visit the Ohio Agricultural Research and Development Center (OARDC) in Wooster where about 290 scientists devote their time to research in agriculture, animal science, nutrition, and horticulture. Open seven days a week during daylight hours.

Science

Trees

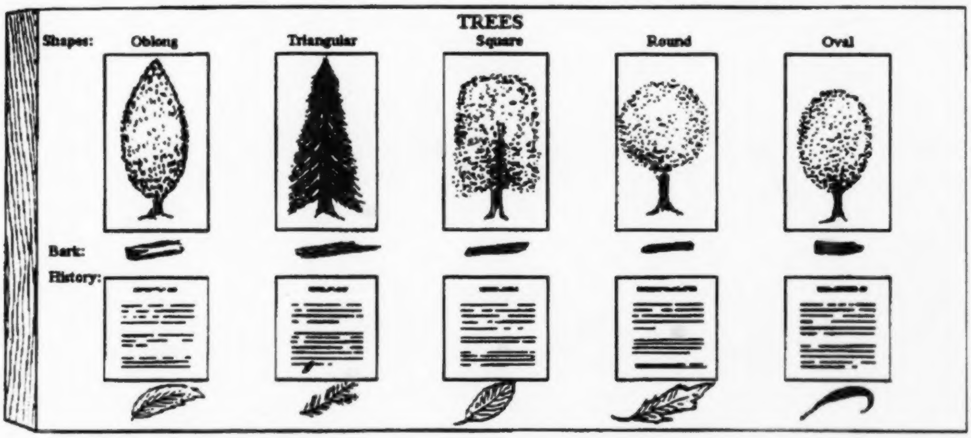
Materials: a large varnished piece of plywood or a piece of heavy cardboard, chips of wood and bark from several types of trees, glue, pictures of these trees, a small history of each tree, some leaves from each tree, floor wax, and newsprint.

Use the varnished plywood or the cardboard as the background for the display. You should select one type of tree to represent each of the five basic silhouettes — oval, square, oblong, triangular, and round. You might want to assign each silhouette to a family member and have them gather and prepare the necessary materials.

First, draw a picture or provide a photograph of each type of tree selected and mount these across the top of the display board. Visit a lumberyard to obtain a scrap of wood for each tree that has been selected. Glue the wood scrap below the tree pictures.

Then research the history of each tree and prepare a written description of its physical characteristics and uses. Paste these descriptions under the appropriate tree.

If you want to include leaves from each tree, dip them in liquid floor wax, dry them between newsprint, and mount them on the display board.



Did You Know. . .

. . . that today about ¼ of Ohio's land is covered with forests? Before settlers came to Ohio, the area was so heavily forested that a squirrel could travel from the Ohio River to Lake Erie by hopping from branch to branch and never touching the ground.

Follow Buckeye Guy's lead to find more information on this topic

Visit a local park and look for trees with each of the five silhouettes shown above. Can you identify any kinds of trees?

Science

Meteorology

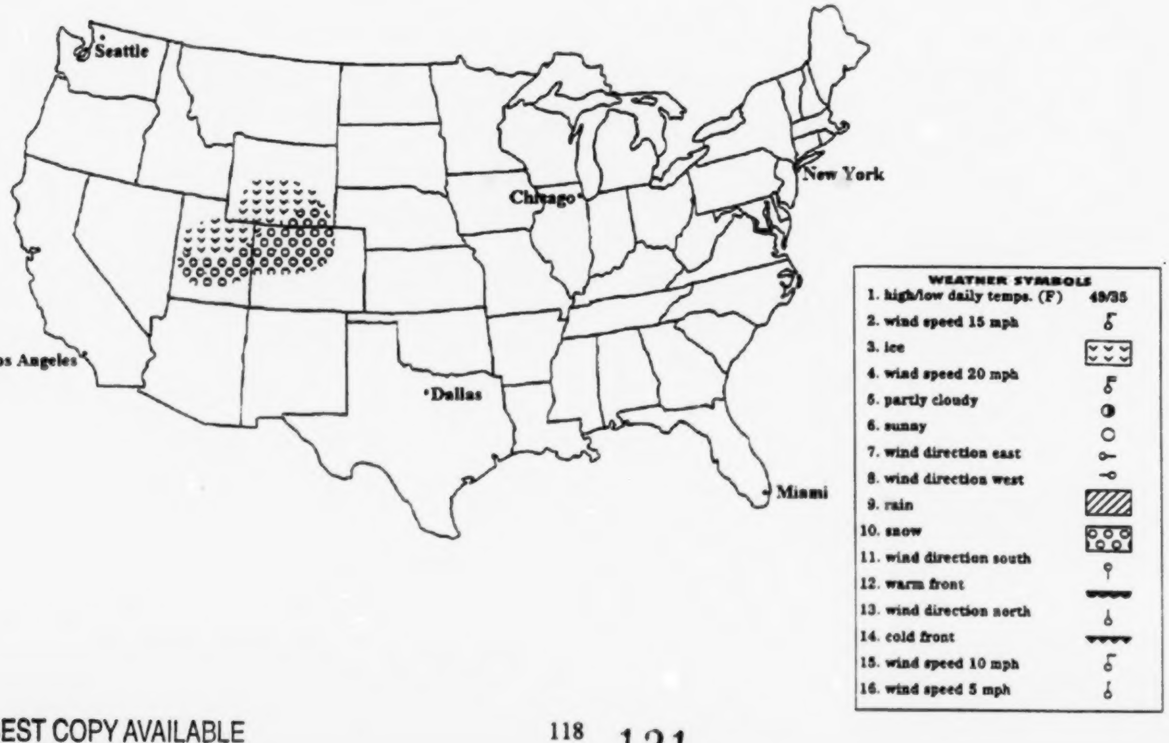
Hello, meteorologists! Today you are forecasting the weather across the country. Use the key and the map to answer the following questions.

1. Fill in the names of the continental states on the map (use an atlas if you need assistance.)
2. Southern Florida is sunny and warm today with a wind speed of 5 mph. Draw the symbols on the map.
3. Which states are best for skiing? Why?
4. Dallas, Texas, is partly cloudy with a northwest wind at 15 mph. Draw the symbol on the map.
5. There's a cold front moving from Louisiana to Montana. Draw this on the map.
6. Label your city on the map. Read today's newspaper, and add the weather symbols for your city's forecast.

Did You Know . . .

. . . that the first public weather service was established in 1869 in Cincinnati.

In Ohio, tornadoes are more likely to strike between 4:00 - 10:00 p.m. out of the southwest. One fourth of them occur in June.


Seattle
New York
Chicago
Los Angeles
Dallas
Miami
WEATHER SYMBOLS
1. high/low daily temps. (F) 49/35
2. wind speed 15 mph
3. ice
4. wind speed 20 mph
5. partly cloudy ◑
6. sunny ○
7. wind direction east
8. wind direction west
9. rain ▨
10. snow
11. wind direction south
12. warm front
13. wind direction north
14. cold front
15. wind speed 10 mph
16. wind speed 5 mph

BEST COPY AVAILABLE

Science

Be a Sun-sational Chef!

You don't need solar cells or large power stations to cook with solar energy! There are parts of the world where heating fuel is scarce and people use solar cookers to prepare their meals. You can be a Sun-sational Chef when you cook marshmallows with your own solar cooker!

Making Your Cooker:
Before making and using your cooker, there are some imporant things to remember:

- never look directly into the sun.
- never look directly at any really bright areas of your cooker.
- wash your hands before handling or eating the marshmallows.

Materials: blunt end scissors, aluminum foil, tape, empty shoe box, file folder, books or magazines, 2 straws, marshmallows, cocoa powder.

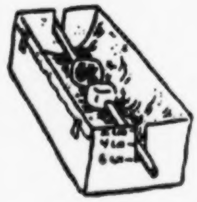
1. Tear or cut the file folder in half along the fold. Place one of the half in the shoe box so that it curves into the shape of a tube cut in half lengthwise. Tape the folder to the box as shown.

2. Line the folder with aluminum foil with the shiny side showing and tape the foil to the box. Ask your adult partner to cut a slit about 1 cm wide and 6 cm long in each end of the box. Make marks along the slit and 2 cm, 4 cm, and 6 cm starting from the top to make your solar cooker adjustable!

3. Place about one teaspoon of powdered cocoa on a piece of aluminum foil. Roll a marshmallow in the cocoa and rub the cocoa onto the marshmallow until the marshmallow is brown.

4. Join two straws together by pushing the end of one straw into the end of another. Push this long straw through a brown cocoa-covered marshmallow and through a white marshmallow so that the marshmallows are near the middle as shown. Your solar cooker is ready to use.

5. Find a sunny outdoor spot with a table or chair on which you can put the cooker. Rest the ends of the straws in the slits and the 6 cm mark. With your adult partner's help, try to aim the cooker directly at the sun. Leave the marshmallows at the 6 cm point for 10 minutes. Did either marshmallow warm up?



6. Put a new brown and a new white marshmallow on the straws and move the straws up to the 4 cm mark. Place a piece of tape under the straws to keep them at the mark. Allow the marshmallows to cook for 10 minutes. Did either get warmer than before? Now try two new marshmallows at the 2 cm mark. How warm did they get? See if you can find the best level for cooking marshmallows on your solar cooker. If one of you marshmallows got warmer than the other, can you explain why?

Science

Household Simple Machines

Materials: objects from kitchen drawer (egg beater, can opener, etc.) or garage (shovel, crowbar, etc.)

Identify the various tools used and what type of simple machine it is.

In the drawers of the kitchen are a wide variety of simple machines! Go through the draw and find:

- a can opener - lever
- an egg beater - wheel & axle
- a nut cracker - lever
- a cutting board - plane
- a corkscrew - screw
- a knife - wedge

Using some of these kitchen utensils and seeing them work would greatly help in the understanding of how the simple machines work.

Tell The Age of a Fish

Next time you're having fish for dinner, figure out how old the fish was. Or find a dead fish on the beach. A live fish just won't stay around long enough for you to study it.

Materials: Fish scales, a magnifying glass

1. Study the fish scales with the magnifying glass. If you can study more than one kind of fish, you'll see that the design on each kind is different.
2. On each scale, look for a pattern. You'll see wide, light-colored bands, along with narrow, dark-colored bands. The wide, light bands show the growth of the fish during each summer of its life. The narrow, dark bands shw the growth during each winter of its life.
3. To find the age of the fish, just count the sets of dark and light bands.

Did You Know. . .

. . . that fish grow like trees? They add the marks of their growth every season.

Science

Bird Feeders

Materials: garden, bird feeder

Your child will understand how animals and other living things adapt to changing seasons.

In fall, set up a bird feeder than can be viewed from the inside of the home. A small one that doesn't contain large amounts of seed would be fine. The feeder should have some protection with a bush or tree near it.

Make up a chart that will display days and weeks, birds, and other observations. During the months your child and you can make and chart weekly observations of type and number of birds, the change in their appearances and behavior. Discuss what birds stay through the months, how they adapt to the changing weather and whether their behavior can indicate change.

Fun With Animal Names

Write sentences using each word combination. Use both words in the form they appear.

ape - grape
lemur - femur
shark - dark
bird - heard
whale - sail
owl - towel

Extension: Can you list eight vertebrate mammals that have the same two vowels next to each otherother in their names? Here's one to start you off: deer.

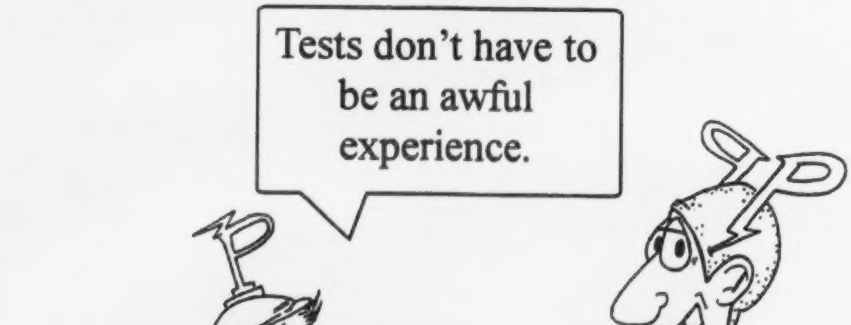
Did You Know . . .

. . . that there are almost 270 kinds of birds in Ohio?

Follow Buckeye Guy's lead to find more information on this topic.

Visit the Seiberling Aboretum on Smith Rd. in Akron to learn more about Ohio's birds, animals, and plants.

Test Taking Tips


Tests don't have to be an awful experience.

General Test Taking Tips

Dear Parent & Child:

Many tests will be taken during your school years. Tests help you know:

- What you have learned.
- What you are ready to do next.
- Where you need extra help.

These activities have been designed to help you understand tests. Everytime you take tests you will learn a little more about them. Here is a list of test tips for you to remember. You will want to add your tips to this list.

TEST TIPS TO REMEMBER

Follow the test rules. If you don't understand them, ask for help.

Look for key words in the directions. They tell you **where** to find things, **when** to do things, **what** to look for, and **how** to do the test.

Read every answer. The best one could be last.

Get rid of tricksters. Look for answers that are tricky or that don't make sense. Throw them out. Then pick the best answer from the ones that are left.

Fill in the answer spaces quickly, but stay in the lines.

Work so that you have enough time to complete all the test questions.

Try to find out ahead of time what you need to know for the test. If you are not sure about it:

- ask your teacher, family, and friends for help.
- check your school books.
- do some practice.

Be ready on test days. Remember to:

- get plenty of sleep the night before.
- eat a good breakfast.
- make sure you have two or three No. 2 pencils with clean erasers. The points should not be too sharp.
- think of the test in a way that keeps you from getting scared. Pretend that it is a puzzle or game. Just follow the rules and do your best. You'll be a winner!

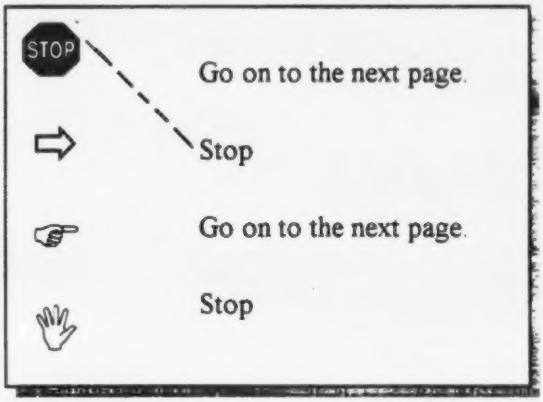
Understanding the Test-Taking Game

Rules of the game are very important. They tell you what to do. You must understand the rules to play. You must follow the rules to win.

Test rules are just like the rules of a game. Be sure you understand what to do. Many wrong answers gome from not going by the rules. If the rules are no clear to you, ASK FOR HELP.

Some test rules are signs. They may be found at the top or bottom of the page.

1. Look at the signs at the right.
2. Match each sign with its meaning.



Hint: As you listen to your teacher read the directions (or read by yourself), point to what is being read, using the sample that follows:

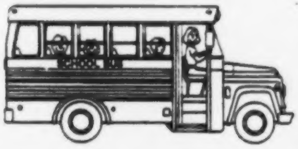
DIRECTIONS

Your teacher says:	**Then you:**
"Look at the bus."	Point to the bus
"See the two arrows."	Point to the arrows
"Each arrow points to a circle and a word"	Point to the circle and the word
"Mark the circle beside the name of the picture"	Point to the correct circle.

Samples help you learn what to do, too. A sample shows what the test questions will be like and how to answer them.

Mark the circle beside the name of the picture:

⇨ ○ buns
⇨ ○ bus



Unlocking the Directions in the Test-Taking Game

Keys unlock doors. Key words unlock ways to do tests correctly.

These key words tell **where** to find things.

KEY WORDS:

under
below
middle
beside
by
corner
top
bottom
left
upper
lower
right

1. **Read the rules at the right. Circle each key word that tells you where. You will find 7 key words to circle.**

Write your name in the upper left corner of the page. Find the tree beside the Number 1. Read the story by the tree. Look at the words below the story. Pick the word that means the same as the story word with a line under it.

These key words tell **when** to do things:

KEY WORDS:

first
last
begin
end
before
after
start
finish
until
when

2. **Read the rules at the right. Circle each key word that tells when. You will find 9 key words to circle.**

Do not begin until your teacher tells you to start. Do the sample first. After that, do Number 1. Work until you get to the end of the page. When you finish, go on to the next page.

These key words tell **how** to take a test.

KEY WORDS:

wait
listen
pick
find
choose
look
decide
read
think
write

3. **Put a line under the 3 key words that tell how to take a test.**

Read the sentences. Pick the one word from the list that best completes the sentence. Decide if the finished sentence is true.

Read Everything Before Doing Anything

Be very careful to read every answer given for a test question. You may have to decide between two or three answers when only one is the best.

Tiger is Dick's dog. When Dick fell into the lake, Tiger pulled him out.

"You are a hero, Tiger. You saved my life!" said Dick.

Read this story. Then pick the best name for the story.

1. Wet Dog
2. Dick's Dog
3. Dog Hero

If you picked number 3 you're correct. All the story names seem right but "Dog Hero" is the very best. Tiger is more than just a wet dog or Dick's dog. He saved Dick's life. Tiger is a hero.

Sometimes "all of the above" is the last answer for a question. "None of the above" can also be an answer. When all of the answers are correct, mark the space beside "all of the above". When there are no correct answers, mark the space beside "none of the above".

Try the test below:

1. Which of these are colors?
   - ○ blue
   - ○ black
   - ○ brown
   - ○ all of the above

2. Which of these can fly?
   - ○ redbird
   - ○ crow
   - ○ airplane
   - ○ all of the above

3. Which word is spelled wrong?
   - ○ city
   - ○ garage
   - ○ elephant
   - ○ none of the above

4. Which word is spelled wrong?
   - ○ trumpet
   - ○ sheep
   - ○ Indian
   - ○ none of the above

The Matching Game

Some tests have one page for questions and another page for answers. When you take this kind of test, be careful. The answer page may be used for several different tests. Always check the test name. Then match it with the same name on the answer page.

1. Find the sample test near the bottom of this page.
2. What is the name of the test? ______________________________
3. Is the same name on the answer page? ________________________

Be sure to mark the answer page for the right question. Look at the question number on the test. Find the same number on the answer page. Then mark your answer. Do this for each one. To help you find the right answer space, keep the answer page as close to the test as you can.

1. Look at the test and answer sheet below.
2. The first answer is done. Which answer is marked? ______________
3. The last answer in the test is the correct one. Suppose you marked the last space on the answer page. Would the machine have counted your answer right?

Try the test below. Find the word that means nearly the same as the underlined word or phrase.

SAMPLE

Test 2
Vocabulary

21. In this spot.
    1. stair
    2. tops
    3. place

22. Small Animal
    1. tiny
    2. Huge
    3. Smart
    4. Tall

ANSWER PAGE

Test 1 Word Analysis	Test 2 Vocabulary
1. ①②③④	21. ①②❸④
2. ①②③④	22. ①②③④
3. ①②③④	23. ①②③④
4. ①②③④	24. ①②③④
5. ①②③④	25. ①②③④

The Answer Space Game

Remember - a machine may check your test. You must mark the answer spaces very clearly so the machine will know what answers you chose. Be sure to stay inside the lines. You will need a No. 2 pencil that is not too sharp. It is always wise to have two or three pencils with clean erasers.

Answer spaces can be may different shapes and sizes. Here is what some of them look like.

○ ① ⬭ ☐ ⬯ || || || = = = ⬭ ⬭ ⬭

See how quickly you can fill in the answer spaces above. Remember, stay inside the lines.

Now try these test questions.

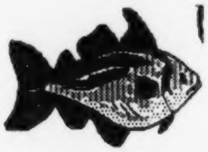
1. read each question
2. read each answer
3. pick the best answer and fill in the correct space. Stay inside the lines.

1. A young cat is a ______
   - ○ chicken
   - ○ duck
   - ○ kitten

2. Red is a __________.
   - ○ book
   - ○ color
   - ○ crayon

3. Find the missing letter: (i, j, k, ____, m)
   - ○ a
   - ○ p
   - ○ l
   - ○ r

4. Name the picture: ○ dish ○ fish ○ fast



The Detective Game

You need to work quickly when taking a test. Here is a clue to help you go faster: GET RID OF ANSWERS THAT YOU CAN TELL ARE WRONG. Spotting the wrong answer first leaves fewer answers to choose from and makes choosing the right answer a lot easier. Use the clues below to spot the wrong answers.

Say each answer to yourself. Forget about those that don't even come close.

Read each question. Then fill in the circle for the correct answer.

Match the middle sound:
1. Spot
○ fun ○ top ○ cart

Picture each answer in your mind. Pick the one that makes sense. Think about how milk and water are alike

Find the best word to end the sentence.
2. Milk and water are called: ____.
○ bushels
○ liquids
○ pints

Think about what word is needed Here you need a word that tells what happened next. There are only two and you need to find the best answer.

Try each possible answer in the test sentence. Mark in the best one.
3. First, I went to Jack's house and _____ I went home.
○ earlier ○ then
○ before ○ after

STUDY SKILLS

We know you would rather be doing something else but stick with us!

Study Skill Suggestions To Use at Home

Parent involvment in a child's education can mean the difference between success and failure. Helping your child with study skills can make a difference.

The following are suggestions that you, the parent, can use to help your child study at home:

- Help your child realize that studying is a "do-it-yourself" project. However, show willingness to assist your child when the need arises.
- Help your child to consider and decide what time of day is most effective for study, and to plan accordingly.
- Help your child plan time for fun activities and television so that these can have their place. A child's attention span can be short, so vary activities.
- Try to use time management strategies. A form is included to help keep track of homework assignments, long range projects, and other activities.
- Take care to notice words and phrases printed in **bold**, CAPTIALS, *italics* and those that are underlined.
- If a passage of reading is unclear after the first reading - REREAD.
- Keep a supply box and extra writing and project materials on hand in one location for easy access. Items could include but would not be limited to:

  pens, pencils, markers, ruler, paper punch, glue, scissors, tape, notebook and graph paper, construction paper, typing paper, tag board, reference books such as dictionaries, encyclopedias, thesauraus, atlas.
- We all have individual learning styles and need to have a time and place designated for completing work successfully. Some of us need quiet while others need background music. Some of us need a desk while others prefer the floor or bed. Some of us need bright light while others prefer soft light. Some of use need to be alone while others need to work in the company of others.
- When completing an assignment try reading the questions which will be answered **first** and then read the passage or chapter of information.

ELEMENTARY HOMEWORK LOG

NAME ______________________________ DATE ________________

SUBJECT	HOMEWORK ASSIGNMENT	DUE DATE

DAILY SCHEDULE

MONDAY - HOMEWORK TIME	
3:00 PM	7:00 PM
4:00 PM	8:00 PM
5:00 PM	9:00 PM
6:00 PM	10:00 PM
TUESDAY - HOMEWORK TIME	
3:00 PM	7:00 PM
4:00 PM	8:00 PM
5:00 PM	9:00 PM
6:00 PM	10:00 PM
WEDNESDAY - HOMEWORK TIME	
3:00 PM	7:00 PM
4:00 PM	8:00 PM
5:00 PM	9:00 PM
6:00 PM	10:00 PM
WEDNESDAY - HOMEWORK TIME	
3:00 PM	7:00 PM
4:00 PM	8:00 PM
5:00 PM	9:00 PM
6:00 PM	10:00 PM
THURSDAY - HOMEWORK TIME	
3:00 PM	7:00 PM
4:00 PM	8:00 PM
5:00 PM	9:00 PM
6:00 PM	10:00 PM
FRIDAY - HOMEWORK TIME	
3:00 PM	7:00 PM
4:00 PM	8:00 PM
5:00 PM	9:00 PM
6:00 PM	10:00 PM

THINGS TO DO THIS WEEK

MONDAY:

TUESDAY:

WEDNESDAY:

THURSDAY:

FRIDAY:

LONG-RANGE PLANNER

NAME ______________________ DATE ______________

ASSIGNMENT ______________________ DUE DATE ______________

STEP 1 ______________________ Date to be completed ______________

____

STEP 2 ______________________ Date to be completed ______________

____

STEP 3 ______________________ Date to be completed ______________

____

STEP 4 ______________________ Date to be completed ______________

____

STEP 5 ______________________ Date to be completed ______________

____

STEP 6 ______________________ Date to be completed ______________

____

STEP 7 ______________________ Date to be completed ______________

____

STEP 8 ______________________ Date to be completed ______________

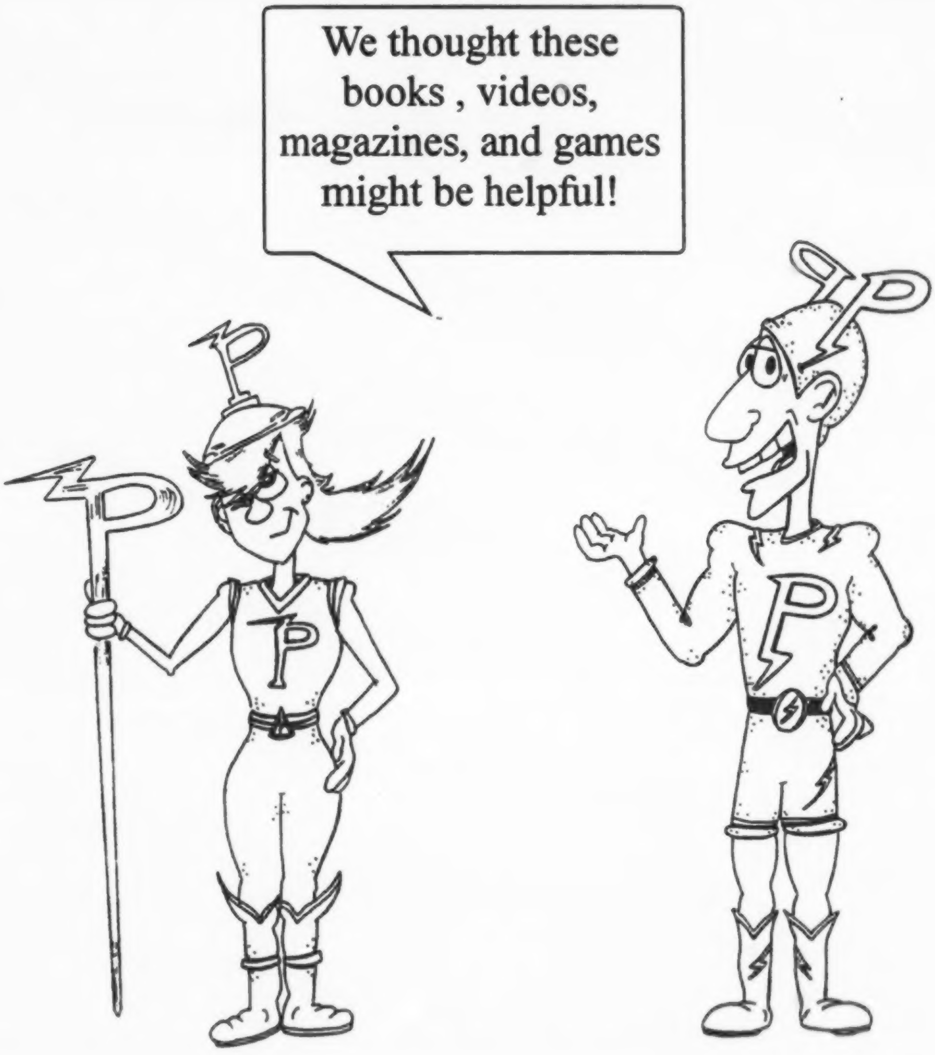
____

WEEKLY PLANNER

NAME ______________________ DATE ______________

SUBJECTS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

Bibliography


We thought these books , videos, magazines, and games might be helpful!

CITIZENSHIP/SOCIAL STUDIES

All About Ohio Almanac	Shay, Harry
America the Beautiful	Kent, Deborah
Amish Home	Bial, Raymond
Aunt Harriet's Underground Railroad In The Sky	Ringgold, Raith
Aurora Means Dawn	Sanders, Scott
Big Ideas In Geography	The Mini Page
Brunswick Our Hometown	Boyer, Sam
Buckeye Legends	Katz, Michael Jay
Cabin Faced West	Fritz, Jean
Calliope	Magazine
Canada Geese Quilt	Kinsey-Warnock, Natalie
Chippewa	Osinski, Alice
Down Buttermilk Lane	Mtichell, Barbara
Eight Hands Round	Paul, Whitford, Ann
Ellis Island	Stien, R. Conrad
Erie Canal	Spier, Peter
Fall of Freddie Leaf	Buscaglia
Floating House	Sanders, Scott
Follow The Drinking Gourd	Winter, Jeannette
Get on Board	Haskins, Jim
Grass Songs	Turner, Ann
Great Ancestor Hunt	Perl
Great Lakes	Henderson, Kathy
Heartland	Siebert, Diane
Here Comes the Mystery Man	Sanders, Scott
Highland Heritage	Highland Schools
House on Maple Street	Pryor, Bonnie
I Am Regina	Keehn, Sally
If You Traveled On the Underground Railroad	Levine, Ellen
If Your Name Was Changed at Ellis Island	Levine, Ellen
Imani's Gift at Kvanzaa	Burden, Datmon
Immigrants	Sandler, Martin W.
In Coal Country	Hendershot, Judith
John Glenn	Angel, Ann
Johnny Appleseed	Lindbergh, Reeve
Just Plain Fancy	Polacco, Patricia
Kids Learn America	Gordon, Patricia
Mama Is A Miner	Lyon, George Ella
Many Thousand Gone	Hamilton, Virginia
Mounds of Earth and Shell	Shemie, Bonnie
My Family History	Burgeson, Nancy

Citizenship/Social Studies (continued)	
My Family History	Reef, Catherine
Next Spring An Oriole	Whelan, Gloria
Now Let Me Fly	Johnson, Dolores
Ohio	Fox, Mary Virginia
Ohio - From Sea to Shining Sea	Fradin, Dennis
Paddle-To-The-Sea	Holling, Clancy Holling
People	Spier
Picking Peas for a Penny	Medears
Pinata Maker	Ancona, George
Portrait of Ohio	Thompson, Kathleen
Reuben and the Fire	Good, Merle
Sweet Clara and the Freedom Quilt	Hopkinson, Deborah
The Great Migration	Lawrence
There's No Such Thing as a Chanukah Bush	Sussman, Susan
Tom Edison's Bright Ideas	Keller, Jack
Ulysses S. Grant	Kent, Zachary
Underground Man	Meltzer, Milton
Warm As Wool	Sanders, Scott
Weasel	DeFelice, Cynthia
When I Was Young In the Mountains	Rylant, Cynthia
Where In America's Past is Carmen Sandiego?	Computer Games
Where In the World Is Carmen Sandiego?	Computer Games
Where in the World is Henry?	Balian
Who Came Down That Road?	Lyon, George Ella
Working Cotton	Williams, Sherley Ann
Wright Brothers	Freeman, Russell
Your Best Friend Kate	Brisson, Pat
Zillions: Consumer Reports for Kids	Magazine

LANGUAGE ARTS

Andy and the Lion	Daugherty
Go Fish	Stolz, Mary
I Know an Old Lady Who Swallowed a Fly	Westcott, Nadine
101 Bug Jokes	Eisneberg
A River Ran Wild	Cherry, Lynne
Addy Learns a Lesson: A School Story	Porter, Connie
Aesop's Fabls	Aesop
Aida	Price, Leontyne
All Year Songbook	Scholastic
Alligator Arried With Apples: A Potluck Alphabet Feast	Crercent Dragonwagon

Language Arts (continued)	
Alvin Ailey	Pinkney, Andrea Davis
Amazing Grace	Hoffman, Mary
American Tall Tales	Osborne, Mary
And Now Miguel	Krumgold
Aster Ardvarks Alphabet Adventures	Kellogg
Barn Dance	Martin
Ben & Me	Lawson
Betsy & the Boys	Haywood
Big Bad Bruce	Peet
Black Stallion	Farley
Brighty of the Grand Canyon	Henry
Brown Honey in Broomwheat Tea	Thomas, Joyce Carol
Centerburg Tales	McCloskey
Charlotte's Web	White
Courage of Sarah Noble	Dalgliesh
Cranberry Halloween	Devlin
Cricket in Times Square	Selden
Danny Dunn	Williams
Davey Crockett	jb/C938
Dectective Whooo	Panek
Dr. Doolittle	Lofting
Emperor's New Clothes	Anderson
Every Kid's Guide to Thinking and Learning	Berry, Joy
Fables	Lobel
Fourth Grade is a Jinx	McKenna, Colleen
Fourth Grade Rats	Spinelli, Jerry
Frederick	Lionni
Front Porch Stories at the One-Room School	Tate, Eleanora
Fun With Paper Bags and Cardboard Tubes	Walter, Virginia F.
Gator Pie	Mathews
Gentle Ben	Morey
Georgie the Ghost Book	Bright
Henry Huggins	Clearly
Highlights for Children	Magazine
Hoang-Anh: A Vietnamese-American Boy	Hoyt-Goldsmith, Diane
Homer Price	McCloskey
How To Study	Fry, Ron
Hubert's Hair Raising Adventure	Peet
Huge Harold	Peet
I Can't Said the Ant	Cameron, Polly
King Bidgood's in the Bathtub	Wood
Little House	Wilder
Little Old Lady Who Wasn't Afraid of Anything	Williams
Little Red House in the Big Woods	Wilder
Magic Spell	Computer Games

Language Arts (continued)	
Make a World	Emberley
Making and Flying Kites	Video
Making Masks	Video
Making of a Picture Book	Martin & Show
Making Puppets	Video
Matchlock Gun	Edmunds
Moonbean on a Cat's Ear	Gay
Mr. Popper's Penguins	Atwater
My Great Aunt Arizona	Houston, Gloria
Owen	Kenkes, Kevin
Owl Moon	Yolen
Pass It On: African American Poetry for Children	Hudson, Wade
Peter and the Wolf	Eastman
Peter Pan	Barrie
Pinocchio	Lorenzini
Plain Girl	Sorenson
Pueblo Storyteller	Hoyt-Goldsmith, Diane
Q is for Duck an Alphabet Guessing Game	Elting
Random House Book of Poetry	Prelutsky
Red Balloon	Lamorisse
Ribsy	Cleary
Sharks: Challengers of the Deep	Cerullo, Lynne
Shiloh	Naylor, Phyllis
Shoes	Winthrop
Snowbound With Betsy	Haywood
Sports Illustrated for Kids	Magazine
Stone Soup	Magazine
Strawberry Girl	Lenski
Strider	Cleary, Beverly
Sunflakes: Poems for Children	Moore, Lillian
Talking Walls	Knight, Margy Burns
The Best Christmas Pageant Ever	Robinson, Barbara
The Best School Year Ever	Robinson, Barbara
The Blanket Had to Go	Evans
The Candy Corn Contest	Reilly Gift, Patricia
The Complete Baseball Player	Winfield, Dave
The Ghost Eye Tree	Martin
The Haunting of Grade 3	Maccaroni
The Jolly Postman	Ahlberg
The Kids' Book of Chess	Kidder, Harvey
The King Who Rained	Gwynne
The New Kid on the Block	Prelutsky
The Random House Book of Poetry for Children	Pretlutsky, Jack
The Remebering Box	Clifford, Eth

Language Arts (continued)	
The Sweetest Fig	Van Allsburg, Chris
The Very Worst Monster	Hutchins
The Young Writer's Handbook	Tchudi, Susan & Stephen
Three Days on a River in a Red Canoe	Williams
Trumpet of the Swans	White
Wild Fox: A True Story	Mason, Cherie
Wild Words	Ashen, Sandy
Wilfred Gordon McDonald Partridge	Fox
Wind in the Willows	Grahame
Winnie-The-Pooh	Milne
Wood-Hoopoe Willie	Kroll, Virginia
Writer Rabbit	Computer Games
Yeh-Shen	Louie
Zoomrimes: Poems Abouth Things That Go	Cassedy, Sylvia

MATH	
12 Ways to get to 11	Merriam, Eve
17 Kings and 42 Elephants	Mahy, Margaret
A Million Fish . . . More or Less	McKissack, Patricia
Alexander Who Used to be Rich Last Sunday	Voirst, Judith
Anno's Counting Book	Anno, Masaichiro
Anno's Hat Tricks	Noaki, Akihiro
Anno's Math Games	Anno, Mitsumasa
Anno's Math Games I, II, and III	Anno, Masaichiro
Anno's Mysterious Multiplying Jar	Anno, Mitsumasa
Arithmetic	Sandburg, Carl
As the Crow Flies	Hartman, Gail
Bennies Pennies	Brissor, Pat
Bet You Can't	Cobb, Vickie
Body Math	Time-Life
Bunchies and Bunchies of Bunnies	Mathews, Louise
Button Box	Reid, Margaret
City Math	Time-Life
Cloak for the Dreamer	Friedman, Aileen
Count Your Way Through Japan, etc.	Haskins, Jim
Counting on Frank	Clement, Jim
Dallas Titans Get Ready for Bed	Kuskin, Donald
Do You Wanna Bet	Cushman, Jean
Dot and the Line	Juster, Norton
Each Orange Had 8 Slices	Giganti, Paul

Math (continued)	
Eating Fractions	McMillan, Bruce
Elementary School Mathematics: What Parents Should Know About Estimation	Reys, Barbara
Family Math	Stenmark, Virginia
Feast for 10	Falwell, Cathryn
Fractions are Parts of Things	Dennis, J. Richard
From 1 to 100	Sloat, Teri
Go Hang a Salami	Agee, Jon
Grandfather Tang's Story	Tompert, Ann
Hattie and the Fox	Fox, Mem
Help Your Child Learn Number Skills	Usborne Parents' Guides
High Rise Glorious Skittle Skat Roar	Willard, Nancy
How Big is a Foot	Myller, Rold
How Many Bugs in a Box	Carte, David
How Many Feet in the Bed	Hamm, Diane
How Much is a Million	Schwartz, David
How Tall Was Milton	Lowery
Hundred Penny Box	Mathis, Sharon
I'm Going to be Famous	Birddseye, Tom
If You Made a Million	Schwartz, David
In One Day	Parker, Tom
It's Mine	Lionni, Leo
Jim and the Beanstalk	Briggs, Raymond
King's Chessboard	Birch, David
Kings Commissioners	Friedman, Aileen
Like Jake and Me	Jukes, Mavis
M and M's Counting Book	McGrath, Barbara
Math for Smarty Pants	Burns, Marilyn
Math Matters	National PTA
Math Projects fo Young Scientists	Watts, Franklin
Mathematics: A Way of Thinking	Addison-Wesley
Melisande	Nesbit, E.
Microcomputers At Work	Hargrove, James
Moira's Birthday	Munsch, Robert
Mr. Archimedes Bath	Allen, Pamela
Nature Math	Time-Life
One Dollar Riddle Book	Burns, Marilyn
One Hundred Hungry Ants	Pinczes, Elinor
Only One	Harshman, Marc
Philharmonic Gets Dressed	Kuskin, Donald
Pizza Math	Time-Life
Sam's Sandwich	Pelham, David
Sea Squares	Hulme, Joy
Seven Blind Mice	Young, Ed
Sports Math	Time-Life

Math (continued)	
Ten Beads Tall	Adams, Pam
Ten Black Dots	Crews, Donald
Ten Sly Piranhas	Wise, William
The Book of Think or How to Solve Problems Twice Your Size	Burns, Marilyn
The Greedy Triangle	Burns, Marilyn
The Guiness Book of Numbers	Room, Adrian
The I Hate Mathematics Book	Burns, Marilyn
The Learning With Series	Cuisenaire Company
The Wolf's Chicken Stew	Kaszo, Keiko
Too Hot to Hoot	Terban, Marvin
Tuesday	Wiesner, David
Twleve Circus Rings	Chevast, Seymour
What Comes in 2's, 3's, and 4's	Aker, Suzsanne

SCIENCE

3, 2, 1 Contact	Magazine
A New True Book: Insects	Podendorf, Illa
A Pet for Mrs. Arbuckle	Smyth, Gwenda
A Tree is Nice	Udry, Janice
Animal Fact/Animal Fable	Simon
Animals Born Alive and Well	Heller, Ruth
Animals Should Definately Not Wear Clothing	Barrett, Judi
Annie and the Wild Animals	Brett
Ant Cities	Dorros, Arthur
Baby Bears	National Geographic
Beastly Neighbors	Rights
Bill Nye, The Science Guy	Video
Bringing the Rain to Kapiti Plain	Aardema, Verna
Bruno Brontosaurus	Rubel
Bugs	Parker, Nancy
Chickens Aren't The Only Ones	Heller, Ruth
Cloudy with a Chance of Meatballs	Barrett
Corn is Maize	Aliki
Creatures Great and Small: Dinosaurs and Insects	Video
Cricket	Magazine
Dear Zoo	Campbell
Dinosaur Pop-up Book	Barlowe
Do Not Open	Turkle
Do You Know?	Ford
Does Anyone Know Where a Hermit Crab Goes?	Carle, Eric

Science (continued)	
Done in the Sun	Hillerman
Eco Fairs and Carnivals	Kallen, Stuart A.
Fireflies in the Night	Hawes, Judy
Fish Is Fish	Lionni, Leo
Fish Out of Water	Palmer
Flash, Crash, Rumble and Roll	Branley, Leo
From Egg to Butterfly	Reidel, Marlene
Fun With Magic	Video
Grandfather Twilight	Berger, Barbara
Gregory, The Terrible Eater	Sharmat, Mitchell
Housekeeper of the Wind	Widman
How Come?	Richards
How Much is a Million?	Schwartz, David
How to Hide . . . Series	Heller
How to Hide a Butterfly	Heller
How to Hide a Polar Bear	Heller, Ruth
Illusions	Troll Assoc.
In Shadowland	Anno, Mitsumasa
Inch By Inch	Lionni, Leo
Insect and Spiders	Milne, Lorus
Insect Metamorphosis: From Egg to Adult	Goor, Ron & Nancy
Insects Around the House	Souza, D. M.
Insects do the Strangest Things	Hornblow, Leonora
Insects That Live in Families	Morris, Dean
Introducing Ecology: Nature at Work	British Museum
It's A Good Thing There Are Insects	Fowler, Allen
Kids Discover	Magazine
King's Flower	Anno
Lady and the Spider	McNulty
Life of the Butterfly	Fischer-Nagel, Heiderose & Andreas
Look Again	Hoban
Mickey's Magnets	Cranley
Microsoft Flight Simulator	Computer Games
More Mudpies to Magnets	Sherwood, Williams, Rockwell
Munching, Poems About Eating	Bennett, Lee
Mysteries and Marvels of Insect Life	Owen, Dr. Jennifer
National Geographic Videos for Kids	Video
Plant a Rainbow	Ehlert
Popcorn	Asch, Frank
Predator Prey Puppets	Mahn
Rain Forest	Cowcher, Helen
Regards To the Man In the Moon	Keats, Ezra Jack
Science Around the House	Gardner, Robert
Science Wizardry for Kids	Kenda & Williams

Science (continued)	
Seedling Child	Bornstein
Series . . . Sight, Hearing , Touch, Smell, Taste	Ruis
Seven Eggs	McKenna
Shadow Chaser	Cosgrove
Silkworms	Johnson
Snails Spell	Ryder
Snow is Falling	Branley, Leo
Spiders	Chinery, Michael
Summer Is	Zolotow, Charlotte
Sunshine Makes the Seasons	Branley, Leo
Tell Me Why	Video
The Aminal	Bulian
The Big Snow	Hader
The Cloud Book	dePaola, Tomie
The Day Jimmy's Boa Ate the Wash	Noble, Trinka
The Desert Is Theirs	Baylor, Byrd
The First Book of Bees	Tibbetts, Albert
The Know How Book of Experiments	Amery, Heather
The Legend of the Milky Way	Lee, Jeanne M.
The Mirrorstone	Palin
The Plant Sitter	Zion, Gene
The Popcorn Book	dePaola
The Rainbow Rider	Yolen, Jane
The Reason for a Flower	Heller
The Snail's Spell	Ryder, Joanne
The Sun Our Nearest Star	Branley, Leo
The Tiny Seed	Carle, Eric
The Trek	Jonas
The Way Things Work	McCauley, David
Thomas' Snowsuit	Munsch, Robert
Unbelievable Bubble book	Cassidy
Under the Moon	Ryder, Joanne
Weekly Reader -- Dinosaur Kit	
What Bit Me?	Souza, D. M.
What Makes Day and Night	Branley, Leo
What?	Reece
When Insects are Babies	Conklin, Gladys
Where Butterflies Grow	Ryder, Joanne
Where Do They Go? Insects in Winter	Selsam, Millicent
World Magazine	Magazine
Zoobooks	Magazine
Zoobooks 2	Biel, Timothy Levi

A Supplemental List of Educational Games/Tools

Reading Games

Adventures in Reading - Frank Schaffer
Bright Ideas/Calendar Activities - McDonald
Homework Connections - Bockwoldt & Cheney
Book Ends - Borba & Ungars
Journaling - Bromley
Games for Whole Language - Instructional Fair Racks
Go the the Head of the Class - Milton Bradley McNally
Boggle - Parker Bros.
Word Yahtzee
Hangman
Guess Who? - Milton Bradley
Scrabble - Selchow & Righter Co.
Scrabble Jr. - Selchow & Righter Co.
Probe - Parker Brothers
Authors Card Game - U.S. Games System, Inc.
Scattergories - Milton Bradley Co.
Illustory - Chimeric Inc.
Memory
Brain Quest

Math Games

Ghost Party - Ravensburger
'S Math - Pressman
Monopoly - Parker Bros.
Yahtzee - Parker Bros.
Payday - Parker Bros.
Chase Larger Numbers
Allowance Game - Lakeshore
Budget
Super Clerk
Shopping Bag
Presto Chango
Uno Dominoes - International
K'Nex - Connector Set Toy Co.
Amazing Labyrinth -
Ravensburger
Number Munchers
Math Blaster
Jr. math Shop

Citizenship Games

Game of the States - Milton Bradley
Battleship - Milton Bradley
State the Facts - Pressman
Name That Country - Educ. Insights
Ohio Jigsaw Puzzle - 550 pieces
Any Newspaper
Geo Safari
Kids U.S. Road Atlas - Rand
Oregon Trail

T.V.

Reading Rainbow
Magic Schoolbus

Science Games

Lego Blocks (simple machines & 3D figures)
Clue - Parker Bros.
Brain Quest - University Games
20 Questions for Kids - University Games
Trivial Pursuit Jr. - Parker Bros.
Scattergories - Milton Bradley
Pollination Game
Food Chair Game
Magnashapes
Instant Science Lessons - Gruber
Hands on Science - Markle

. . . there are even more!